Information Literacy among the Students in the Electronic Environment: A Case Study of Bharathidasan University, Trichy

C. Ranganathan
Assistant Professor,
Department of Library and Information Science,Bharathidasan University,Tiruchirappalli-24, TamilNadu,e-mail: cranganathan72@gmail.com

D. Durga
M.L.I.S Final Year Student,
Department of Library and Information Science,
Bharathidasan University, Tiruchirappalli-620 024,
email: durga9553.literature@gmail.com

Abstract

The present study explores the status of information literacy skills of students of Bharathidasan University, Trichy, their information seeking strategies and ability in acquiring, organizing, evaluating and using the information effectively. A well structured questionnaire was designed to collect data for the present study. Personal interviews ware conducted to fill in the gaps if any in the questionnaire. Collected data was analyzed with the help of SPSS. The major findings of the study are that a majority of the respondents possess knowledge of MS-Office, social networking sites and e-mail. Among six types of internet searching tools, searching engines and wiki are the most common, while blogs, online bibliographic databases and subject gateways/portals are less frequent.

Keywords

Literacy, information and communication technology, University Libraries.

.

Electronic access

The journal is available at www.jalis.in

Journal of Advances in Library and Information Science
ISSN: 2277-2219 Vol. 5. No.3. 2016. pp.262-267

1. INTRODUCTION

Information Communication and Technology (ICT) has become the bug word of the modern society. Human society has witnessed many developments through the ages. But no other development has a much effort on the society as the emergence of the information age. In this age, information is a source of instant power as it facilitates decision making, problem solving and action taking. Every person, no matter literate pr illiterate, requires the information to accomplion task at hand, may be personal or professional. Information is not limited to merely library and information centres; one may access the information from a number of sources, it may be video film, a drawing object, graphic records, public presentations and personal computers. The Proliferation of information in various forms and formats simultaneously poses a plethora of problems for information hunters in locating and accessing information. The super-abundance of available information and the manifold choices to access it baffle the users in selecting the most relevant information. This naturally mystifies than for evaluating the quality and authenticity of the available information.

2. INFORMATION LITERACY

The term “Information. Literacy “had its roofs back in 1974 when professor paul Zurkowski, the president of Information Industry association, coins the tern “Information skills” to refer to people who are able to solve their information problems by using relevant information sources and applying relevant technology. Gradually, after replacing the terms user education, library orientation and bibliographic instruction, information literacy become a prime factor in attaining knowledge and developing new understanding. The association of college and Research Libraries (ACRC) defines information literacy as the set of skills needed to find, retrieve, analyses and use information.

3. NEED FOR THE PRESENT STUDY

The importance of information literacy has been well organised in all learning environment and at all levels of education particularly higher education information literacy is a necessary competency that is useful in every aspect of a personals life. For students, information literacy competency would facilitate self learning rather than dependence on the teacher. The present study is an attempt to know the

information literacy competence of the students of Bharathidasan University, Trichy (Tamilnadu, India). The parameters of the study are

- Data collection is confirmed to Bharathidasan University,
- The study is mainly quantitative, using small number of samples; and
- Data analysis and interpretation are entirely based on the feedback received from the respondents.

The analysis of information literacy competency of students will contribute to the creation of information literate society. It will also provide some insights to the researchers who should like to do a comprehensive study on information literacy in the Indian Context.

4. BHARATHIDASAN UNIVERSITY LIBRARY

Bharathidasan University was established at Trichy on 1982 to mark the Pavendar Bharathidasan. The objectives of the University are to make provision for imparting education and promoting research in the humanities, learned profession science and technology. It has academic departments, and 10 constituents colleges, the University has built up an excellent academic infrastructure in the form of a well stocked computerized library (central library), state-of-the-art laboratories. The university library was established in made 1982. The library has a total collection of 1 lakh 50 thousands documents including printed and electronic journals. The library is a member of INFLIBNET UGC-INFONET e-journal consortium programme which in productivity access to 8000 e-journals and some database. It is also a member of DELNET British council library at American Library. This helps the faculty & researcher to procure those books, articles and documents from other educational institution through DELNET which are not available in the University. The library provides various facilities to these users such as photocopies. Computation of bibliographies, inter-library loan, OPAC and web-OPAC, an conditioned reading hall, internet lab, instruction respondents small class room ,etc. Library services are partially computerized.

5. OBJECTIVES OF THE STUDY

The objectives of the study are

1. To deference students information literacy skills in Bharathidasan, Trichy.
2. To examine the information seeking strategies of the students.
3. To assess the ability of the students in acquiring, organizing, evaluating and using information effectively.
4. To provide University authorities with reliable data to support recommendations for the integration of information literacy programme in to the University curriculum;
5. The put forward recommendations which will help to create thinkers who can make optimum use of information in a broader information technology environment.

6. METHODOLOGY

For the purpose of collection of required data following techniques have been used.

- Written questionnaire of studens
- Personal interviews.

6.1 POPULATION OF SAMPLE

The population consists of P.G Students and Ph.d students of the University. Proportional stratified random sampling method is used of provide appropriate representation of both the categories. The population is divided into two strata-post graduate students and Ph.D scholars. The data is collected from of the total population which is considered a satisfactory representation of the population, collected data has beenanalysed with the help of spss

Post graduate students		**Research scholars**		**Total represents**	
Universe	Sample	Universe	ample	Universe	Sample
1200	216	240	34	1440	250

7. DATA ANALYSIS & INTERPRETATION

7.1 Information Technology Skills

The respondents were asked to indicate their information technology skills which form the basic requirement to be an information literate person. M.S. Office excels others with 200 (80%) responses followed by social networking sites (75.6%) and e-mail (71.2%) status wise, 174 (80.5%) post-graduates and 26 (76.5%) research scholars have sufficient skills in using M.S. Office. The table reveals that a majority of research scholars (82.35%) use e0mail service while the percentage slightly decreases in the case of post-graduates (69-5%). For all other skills i-e multimedia application, programming language DTP, Web designing and blogs, post-graduates and research scholars' show-equal response with a slight Variation in percentages. For all the IT skills, the

degree of freedom is / and the value of p is non-significant (p>0.05).

Table 1: IT Skills of the Respondents

IT skills	P.G students	Research scholars	Total	x-value	df	p-value
MS.Office	174 (80.5)	26 (76.5)	200 (80%)	0.306	1	0.580
Social Networking sites	166 (76.85)	23 (67.65)	189 (75.6%)	.349	1	0.245
E-mail	150 (69.5)	28 (82.35)	178 (71.2%)	0.430	1	0.512
Multimedia applications	95 (44)	17 (50)	112 (44.8%)			
Programming languages	73 (33.8)	10 (29.5)	83 (33.2%)	0.255	1	0.614
DTP	60 (27.8)	9 (26.5)	69 (27.6%)	0.025	1	0.874
Web designing	55 (25.5)	9 (26.5)	64 (25.6%)	0.016	1	0.900
Blogs	44 (20.38)	08 (23.5)	52 (20.8%)	0.178	1	0.673

7.2 Purpose of Using Information

Table-2 reveals that 76.4% of the respondents require information to enhance their present status of knowledge, 33.6% to support research and 44.8% to prepare course material for classroom learning. Status wise, the use information for research work shows wide Variation. While only 29.62% P.G use information to support their research work, the corresponding percentage of research scholars is 58.82%. The value of x is 11.222, the degree of freedom is / and the value of p shows highly significant difference (p<0.001). Similar Variation is being seen in case of use of information for class room learning. While 49% of the post-graduate need information for preparing course material for class room learning, only 17.64% of the researchers expressed their desire for such need. The value of x is 11.732. The degree of freedom is / and the value of p shows highly significant differences (p<0.001). The use of information for updating of knowledge and writing paper for seminar/workshop does not show much Variation for both the categories. The degree of freedom for these is / and the value of p is non-significant (p>0.05)

Table 2: Purpose of Using Information

Purpose	P.G (216)	Research scholars(34)	Total(250)	x-value	df	p-value
To update knowledge	165 (76.38)	26 (76.47)	191 (76.4%)	0.000	1	0.992
To support research	64 (29.62)	20 (58.82)	84 (33.6%)	11.222	1	0.001
To prepare course	106 (49)	06 (17.64)	112 (44.8%)	11.732	1	0.001
Material for class form learning		07 (20.58%)				
To work paper for seminar	32 (14.81)		39 (15.6%)	0.744	1	0.388
Others	02 (0.92)	01 (2.94%)	03 (1.2%)	1.006	1	0.316

7.3 Use of Internet Searching Tools

Table 3: Use of Internet Searching Tools

Internet searching tools	P.G (216)	Research scholars (34)	Total (250)	x-value	df	p-value
Search engines	176 (81.5)	27 (79.5)	203 (81.2)	0.082	1	0.774
Websites	116 (53.7)	25 (73.5)	141 (56.4)	4.696	1	0.030
Wikipedia	101 (46.75)	18 (53)	119 (47.6)	0.450	1	0.502
Blogs	55 (25.5)	5 (14.7)	60 (24)	1.864	1	0.172
Online bibliographic databases	46 (21.2)	12 (35.5)	58 (23.2)	3.230	1	0.072
Subjectgateways/portal	25 (11.5)	11 (32.35)	36 (14.4)	10.290	1	0.001
Others	0	0				

Table-3 depicts that the search engine is the most preferred tools for searching information over the Internet with 203(81.2%) responses followed by websites (56.4%). Status wise, the least preference is shown towards subject gateways/portals with 25(11.5%) responses of postgraduates and 11(32.35%) responses of research scholars. For subject gateways/portals, the value of x is 10.290, the degree of freedom is /and the value of p shows highly significant differences (p,0.001). In case of websites also, the responses of post-graduate (53.7%) and research scholars (73.5%) show statistically significant differences (p<0.05). The responses of post-graduates and research scholars regarding search engines, wikipedia,blogs and online bibliographic databases do not show much variation. The degree of freedom for all tools is / and the value p is non-significant (p>0.05)

7.4 Parameters used to evaluate the information

Table 4: Parameters used to evaluate the information

Parameters for evaluate	P.G (216	Research scholars (39)	Total (250)	x-value	df	p-value
Authenticity	100 (46.29)	18 (59.24)	118 (47.2)	0.520	1	0.471
Timelines	53 (24.53)	09 (26.47)	62 (24.8)	0.052	1	0.820
Coverage	72 (33.33)	11 (32.35)	83 (33.2)	0.017	1	0.896
Accessibility	64 (29.62)	12 (35.29)	76 (30.4)	0.445	1	0.504
Usability	57 (26.38)	13 (38.23)	70 (28)	2.045	1	0.153
Others	02 (0.92)	01 (2.94)	03 (1.2)	1.006	1	0.316

Table-4 exhibits the parameters used by the respondents for evaluating electronic information resources. Authenticity excels others with 118 (47.2%) responses followed by coverage (33.2%). Status with, 100(46.29) post-graduate and 18(52.94%) research scholars consider authenticity as the major parameter for evaluating information, of the other category, 2 post-graduate and one research scholar consider easiness to consultation as a parameter for evaluating information. For all the parameter, the degree of freedom is / and the value of p is non-significant (p..0.05)

7.5 Familiarity with searching techniques

The result of the Table-5 reveals that 52% respondents are familiar with searching techniques. Out of these 31.6% are familiar with Boolean operators. 17.6% with Meta searching and only 47% with wildcard/truncations. Students with, not much variation is seen in the responses of both the categories. For all the searching techniques, the degree of freedom and 4 and the value of p is non-significant (p>0.05

Table 5: Familiarity with Searching Techniques

Searching Techniques	P.G. Students (216)		Research scholars (34)		Total		χ^2-value	df	P-value
	Yes	No	Yes	No	Yes	No			
Boolean Operators	67 (31.01)	149 (68.99)	12 (35.29)	22 (64.71)	79 (31.6)	171 (68.4)	6.206	1	0.184
Meta Searching	39 (18.05)	177 (81.95)	05 (14.7)	29 (85.3)	44 (17.6)	206 (82.4)	4.016	1	0.404
Wild Card/ Truncation	08 (3.7)	208 (96.3)	02 (5.88)	32 (94.12)	10 (4)	240 (96)	4.911	1	0.297

7.6 Identification of Citation

Citation identification is the vital ability of information literate. But the result of the table-6 reveals that only 24.4% of the respondents are able to identify the citation. Status wise, majority of the post graduate (76.85%) and research scholars (67.65%) does not have the ability to identify the citations. The

value of χ^2 is 5.718 the degrees freedom are 1 at the value of p is non-significant (p>0.05).

Table 6: Identification of Citation

Identification citation	P.G Students (216)	Research scholars (34)	Total(250)	χ^2 value	df	P-value
Yes	50(23.15)	11(32.35)	61(24.4)			
No	166 (76.85)	23(67.65)	189(75.6)			
Total	216(100)	34(100)	250(100)	5.718	1	0.221

7.7 Knowledge of Legal Aspects

The respondents were asked about their understanding of intellectual property right, copyright laws and fair use of copyrighted material. The results of the table-7 demonstrate that only 46% of the respondents make fair use of information and 28.4% seek permission from the copyright holder. 16% of the respondents also report that they copy the whole text without informing copyright holder. Some of the respondents (7.6%) do not have any knowledge about legal aspects of information. Status wise, not much variation is seen in the respondents of both the categories. The value of χ^2 is 4.536. The degrees of freedom are 4 and the value of p is non-significant (p>0.05)

Table 7: Knowledge of Legal Aspects

Legal aspects	P.G Students (216)	Research Scholars (34)	Total (250)
Seek permission from the copyright holder	61 (28.24)	10 (29.42)	71 (28.4)
Copy whole text information copyright holder	37 (17.12)	03 (8.82)	40 (16%)
Fair use of information	98 (45.38)	17 (50%)	115 (46%)
Don't knowledge	17 (7.88)	02 (5.88)	19 (7.6)
Other	03 (1.38)	02 (5.88)	05 (2%)
Total	216 (100%)	34 (100%)	

$\chi^2 = 4.536$; df =4; p value = 0.0338

8. MAJOR FINDINGS

1. A majority of the respondents of both the categories possess knowledge of MS-Office social networking site and electronic mail.
2. A majority of the post-graduate (76.38%) and researcher (76.47%) require information for enhanced of their knowledge in their respective subject areas. 58.8% researchers use the information to support their research work.
3. Search engines are the most frequently used searching tools on the web for finding information from the internet by 81.5% of post-graduates and 79.5% of research scholars.
4. Maximum number of post-graduates (31%) and researchers (35.3%) are familiar with Boolean operators. However, there is a lack of knowledge among the respondents about the wildcards/ truncations searching techniques.
5. Majority all the respondents (75.6%) in both the categories do not have the ability to identification citation; and
6. Almost all the respondents suggest that the University library should take, Initiative to start information literacy programmes and it should be included in the curriculum of all the streams.

9. SUGGESTIONS

On the basis of the findings of the study, the following suggestions are put forth:

1. The students of the University should be trained to search / browse the electronic information and do its evaluation.
2. The University library should have separate finding to start information literacy programmes to educate the students.
3. The information and Research Skills course should be made a part of the curriculum for all the courses of the University.
4. University library should start alerting services such as E-mail alert or SMS alert to all its members about the new additions of the library: and
5. The faculty and the librarians should collaborate to develop and demonstrate tutorials on intellectual property right, copy right laws and electronic access to information.

10. CONCLUSION

It is hard fact that only information literate can stay ahead. The findings of the study reveal that information literacy instruction programmes are not comprehensive in the target University and it is suggested that the students should be encouraged to attend conference, seminars, workshops, training programmes on IT awareness to survive and progress in an electronic environment. The effective information literacy programmes should be essential in Indian higher educational Institutions. The analysis of information literacy competency of students will help towards creating an information literate society. It will also provide some insights to the researchers who would like to do a comprehensive study on information literacy in the Indian Context

REFERENCES

[1]. Koneric, Indira (2010). ADDIE: Designing Web-enabled information literacy instruction modules. *DESIDOC Journal by Library & Information Technology*. 30(3): P23-34.

[2]. Chartered Institute of Library and Information professional. Information literacy: The skills (2004) http://www.cilip.org.UK/get-involved / advocary /learning/ information literacy/ pages/skills.aspx

[3]. Amudha valli, A. (2008) Information literacy and higher education competency standerds. *DESIDOC Journal of Library & Information Technology*..2 (2). P48-55

[4]. Seamans, Nancy H(2001).Information literacy; A study of freshman students perception, with recommendation. Ph.D thesis. Virginia polytechnic Institue and state University. Blacksburg, Virginia.. from http;// liteseer2.ist.psu. edu/viewdoc/download? Type=pdf.

[5]. Julien, Heidi(2005). Education for information literacy instruction. A global perspective. *Journal of education for library and Information science.* 46 (3);P.210-216.

[6]. Karisiddappa, CR & Rajgoli, Iqbalahmed u (2008). In searching of information literacy programmes and practices: p 28-38.

[7]. Choudhary,BK and sethi, Bipin Bihari. (2009).computer literacy of library professionals in the University libraries of orissa: An analytical study, *IASLIC Bulletin*. .54 (1): P15-30.

[8]. Klaib fadel Jamil (2009). Provided information literacy instruments at private University libraries in Jordan and trends of Zarga private University students towards its objective achievements . *The International Information & Library Review*. 41 (3): P 173-183.

[9]. Hadimani, Manjunath b and Rajgoli, Iqbalabmad (2010). Assessing information literacy competence among the Undergraduate students of college of Agriculture, Raichur: A case study. *DESIDOC Journal of Library & Information Technology*.30 (2): P 70-78.