Turkish Online Journal of Qualitative Inquiry (TOJQI)

Volume 12, Issue 3, May 2021 : 4778-4792

Research Article

Effect of Information Literacy Skills on the Use of Digital Resources by the Faculty Members of Engineering Colleges: A Study

Dr.Gavsiddappa Anandhalli

One of the great truths about modern society is that "information is everywhere". Information is a pervasive and essential part of our society and our lives. The information helps in decision-making, increases our knowledge base, improves our mental thinking, and also an overall change in the societal status of a nation. It is considered as the lifeblood of human beings and it is the currency of the 21st century. On the other hand, Information literacy is a "set of abilities requiring an individual to recognize when information is needed and have an ability to locate, evaluate, and use effectively the needed information"(ALA 2000). Information literacy is also significantly important in the contemporary environment of rapid technological change and proliferating of digital information resources. Without the knowledge of information literacy skills, it is very difficult to manage with the vast amount of information. Many Studies reported that there is high positive correlation was found between the use of resources and information literacy skills. An attempt has been made, to study the influence of information literacy skills on the use of digital resources among the faculty members of engineering colleges. For the present study ACRL standard of information literacy of higher education is used for the design of the study. Later structured questionnaire was designed and distributed to the target population. Further, the Stratified random sampling method was used to select the target population for the study. Three variables namely Gender, Type of branch and Information Literacy Skills have been considered as Independent Variables, while the extent of use of Digital Resources is considered as a Dependent Variable. Multiple Regression Linear Model was applied to see their interaction effect between the Independent variables and dependent variables. It is found that three independent variables, all together have contributed almost 25.60% on the use of Digital Resources by the faculty members of engineering colleges. In which, Information Literacy Skills (X3) has alone contributes a highest i.e21.70%of the total contribution.

Hence, It can be revealed that information literacy skill shave emerged as one of the significant predictor to impact on the use of digital resources. Hence, effort shave be made to conduct information literacy programs by the engineering college libraries to enhance the usage of print as well as digital resources among the students and faculty members of engineering colleges.

Associate Professor, Dept. of Library and Information Science Karnataka State Akkamahaevi Women's University, Vijayapur

Keywords: Information Literacy Skills, ACRL, Digital resources, and Engineering.

1. Introduction

Today we are living in an information era where our day-to-day actives are very much dependent on information and its related activities. Information has been considered an essential commodity and has become a basic resource for individual development. In the meantime, there is a rapid and abundant increase in information publications. The information is produced in various forms like text, audio, video, image, digital, etc. Due to advancements in Information and Communication Technology, information is increasing, producing, storing, processing, and communicating through electronic media. All the facets of information have resulted in increasing, complex, and variety of information. This necessitates the new set of skills i.e Information literacy skills. After 1980, various professional associations in library science focused on this concept and developed various standards, models, and guidelines in general and higher education in particular (Badween, 2001). Information literacy (IL) is a new method of learning related to information handling activities. It is considered a set of abilities requiring individuals to recognize when information is needed and can locate, evaluate and use effectively the needed information (ACRL-2019). "IL has become a core instructional pedagogy in higher education, it is empowering and essential for engaged citizenship" (Hepworth M 2009). "It encourages and facilitates lifelong learning and has become a basic human right in the digital world (IFLA-2016). Information literacy forms the basis for lifelong learning. It is common to all disciplines, all learning environments, and to all levels of education. Hence, It plays a very important role in the academic environment to enhance their academic performance among the stakeholder of higher education institutions.

The library is one of the most important resource centers in any academic setting. Many Studies have repeatedly shows that there is a high positive correlation between user/use of information resources and information literacy programs. A library is a place where information is stored, cataloged, indexed, and made available to end-users. The library staff, more than any other teacher, understand how to identify, locate, retrieve evaluate, and use information.

1.1 Electronic Resources: Advancement in Information Communication technology has brought a radical change in the way information is processed, stored and disseminated, and retrieved. It can be defined as materials that have been conceived and created digitally or by converting analog materials to a digital format, these are available in different forms like text, audio, video, and image, etc. They can be accessed via a computer network or the internet. Today majority of the publications are available in the form of e-books, e-journal, e-article, e-thesis, and dissertations and databases including online resources. These digital resources are heavily used by users across the world. Nowadays they are very popular and famous because of their manifold advantages when compared to print resources. It is observed that there is a high positive correlation is found between information literacy and the use of information resources especially e-resources based on the previous studies. In this context, the present study has been undertaken for the purpose to see the interaction and inter-correlation effect between information literacy and the use of e-resources among the faculty members under study.

2. Review of Related Literature

A considerable number of studies have been conducted on different facets of information literacy in a different settings. The researcher has consulted primary and secondary sources through, online and offline databases, such as LISA, LISTA, EBSCO host, Emerald, e-Thesis and Dissertation, Conference Proceedings, Books, etc., Some of the important studies have been traced in the following section.

Information literacy (IL) is a new method of learning designed and developed for information processing and handling activities. Zorkovaski (1974) was the first time used the term information literacy as part of the information structure of the information industry to describe the information literate individual having the necessary skills and techniques. Kinengyere (2007) has identified the influence of information literacy on the usage of electronic information resources in the academic and research institutions in Uganda. This paper aimed to focus on the innovations of Makere University Library undertook to train the users of the library on how to access different types of information resources, how to use and evaluate and applied them to address their needs. *Matoush (2006)* has explained an overview of innovative information literacy programs at San Jose State University's King Library which served as models for future academic library information literacy programs and also discussed the success achieved, lessons learned, and challenges in the implementation of the information literacy programs. *Fjallbrant (2002)also study* the concept of information literacy and discussed the impact of information technology on information literacy. *Dougan, K. (2015) has* conducted an empirical investigation to determine the information literacy skills of students in Bangladesh. *Ozbicakci, S., Gezer, N. and Bilik, O. (2015)have* identified the information literacy skills of final-year nursing students in two different programs, one focusing on classic learning, and the other on problem-based learning (PBL). Finally, traced the significant difference between the two methods in acquiring information literacy skills. *Pinto, M. and Sales, D. (2015)*have examined University students' attitudes and self-assessment regarding information literacy skills. *Ukachi, N. B. (2015)* has traced how teachers in Nigerian university libraries utilize electronic resources and how their use reflects their information literacy skills. *Baro and Fyneman (2009)*have conducted a study on Information Literacy among Undergraduate Students in Niger Delta University to determine the undergraduate students' level of awareness of information sources available in the University, to know their level of digital literacy, and to determine the different search strategies used by them. *Eisenberg (2008)*highlighted information literacy as the skill and knowledge that allow us to find, evaluate and use the information. Information skills are the necessary tools that help us successfully navigate the present and future landscape of information. The author observed that information technology affected every person in every possible setting, work, education, and recreation. A similar study was conducted by *Maughan (2001)*to assess information literacy among undergraduates of the California University at Berkeley in selected academic departments to measure the 'lower-order information literacy skills of graduating seniors. *Pawinun and Kemparaju (2004)* have examined the role of information literacy programs in the context of digital libraries. *Ramamurthy, P.(et al) (2015)* has assessed the awareness of information literacy and search skills among students in five selected Engineering Colleges in Chittoor district, Andhra Pradesh. *Mahajan, Preeti. , Kumar, Anil (2014)* investigated the basic competency of information literacy and perception towards information literacy behavior of post-graduate students and research scholars of Punjab

University, Chandigarh. A similar study conducted by Dr. Gavisiddappa Anandhalli (2018) found that the impact of Information Literacy skills on the Academic Achievements of the degree college students in Vijayapura city, Karnataka. He has studied the effect of three variables namely Gender, Place, and Information Literacy Skills on the academic achievement of Degree College Students. It is observed that the total contribution of three explanatory variables on the academic achievement of students is found to be 25.3%. in which information literacy skills contribute maximum that is 21.47% to the total contribution finally the author concludes that Information Literacy Skill emerged as one of the important predictors for the assessment of academic achievement of the students.

From the above discussion, it is observed that many studies have been reported on information literacy skills and their impact on information technology, use of information resources, none of the studies have been reported on the influence of information literacy on the use of digital resources. Hence, it is decided to assess the impact of Information Literacy skills on the use of digital resources by the faculty members of engineering colleges. The study is also to see the interaction and inter-correlation effect among the three independent variables and dependent variables. The study assesses the influence of gender, type of branch, and information literacy skills on the use of digital resources and also finds out the maximum contributor variable with the help of the Multiple Regression model by using SPSS statistical software tool.

3. NEED FOR THE STUDY

The success of students/ teachers in the higher education system mainly depends on the effective use of information and its resources critically, it is most important to inculcate information literacy skills among the faculty members, for their better academic performance in their field of specialization. The teachers of the engineering colleges are associated with mainly teaching, learning and research activities and they need information for academic and general purposes. They may need to constantly update their existing knowledge in their domain. It is very significant in all spheres of life in this technological era. Information is available in different versions in various sources. In this regard, the role of the teacher is very important, if the teacher wants to be competent and serious in their studies, teaching, he/ she should have competence and skills in information literacy, so that they can become life- long, independent and serious teachers. Hence, in the present study, an attempt has been made to assess the effect of information literacy skills on the Use of Digital Resources among the Faculty Members of Engineering Colleges. Hence the proposed study has been undertaken.

4. Technical Education in Karnataka

"The government of Karnataka established a separate Technological University in Karnataka on 1st April 1998 as per VTU act1994. Karnataka is the only state having a specialized university in the technical field, with a vision to become an outstanding university at the cutting edge of the knowledge that produces world-class research and leaders for innovative technology and industry "(VTU 2020). The VTU has been divided into four regions namely Banglaore region

having 107 engineering colleges, Mysore region, having 60 colleges, Belagavi region having 34 colleges, and Gulbarga Region having 18 colleges respectively. Thus total, there are 219 engineering colleges, including 13 governments, 11 aided and 193 private colleges offering Bachelor Degree in 25 branches, and M.Tech course in 54 branches with intake inclusive of post-Graduate around 100000 students per year

5. Objectives of the Study

The main objective of this study is to examine the impact of Information Literacy skills on the Use of Digital Resources among the Faculty Members of Engineering Colleges, The specific objectives of the study are;

- To study the Information channels used to access the information by the faculty members of engineering colleges under study.
- To explore the type of information required by the faculty members for their day-to-day activities.
- To assess the level of awareness about different types of information literacy indicators such as identifying searching, locating, retrieving, and evaluating the information among the faculty members of engineering colleges.
- To find out the important predictor variables which contribute more on the use of digital resources understudy
- To find out the effect of gender of the respondent, type of branch, and information literacy skills on the Use of Digital Resources among the Faculty Members of Engineering Colleges

6. Methodology

The aim of the present study is to assess the impact of information literacy skills and competence among the faculty members of engineering colleges understudy, further how information literacy skills influences on the use of digital resources. The study is based on the Survey Method of Research wherein a structured questionnaire was used as data collection tools. The scope of the present study is confined to examine the influence of Information Literacy skills on the Use of Digital Resources among the Faculty Members of engineering colleges. Based on the objectives of the study and background literature, a structured questionnaire was developed with help of ACRL standards of information literacy competency for higher education. A stratified random sampling method was administered for the faculty members under study. The collected data was analyzed with the help of statistical tools like Frequency, Percentage, t-test, ANOVAs, and Regression Model to make projections and to draw meaningful conclusions.

7. **Study Population**

The study populations consist of Faculty Members of Engineering Colleges of north Karnataka. Totally 300 faculty members were considered for the study, out of which 220 faculty members were selected for the study. A study population was selected based on the random stratified sampling method for collecting required data from the respondents.

8. Hypotheses

The following hypotheses have been formulated for the present study.

- There is no significant difference between male and female faculty members with respect to the use of digital resources.
- There is no significant difference among the type of branch (Mechanical, Electronics and Communication, Computer Science and Civil Engineering) with respect to the use of digital resources.
- The gender of the respondent, type of branch, and information literacy skills do not have a significant influence on the use of digital resources among the faculty members of engineering colleges.

9. Statistical Treatment

Appropriate statistical testing like Descriptive statistics, t-test, ANOVA, and Regression model were used to statistically verify the data to accept or reject null hypotheses formulated in the beginning of the study.

10. Data Analysis and Interpretation

Table-1 Gender-wise distribution of study population.

Sl. No	**Gender**	**No. of Faculty Members**	**%**
1	Male	133	60.45
2	Female	87	39.55
	Total	**220**	**100.00**

Table -1 indicate the gender-wise distribution of the study population, it is noticed that the large majority of the study population (N=64-61.0%) belongs to male respondents and while the remaining are female respondents (87-39.55%). It can be concluded that the majority of the study population are male respondents when compared to their female counter part.

Table-2 Age-wise Distribution of the Faculty Members

Sl. No	**Gender**	**Frequency**	**%**
1	Less than30 years	110	50.00
2	30-40 Years	58	26.36
3	40-50 years	32	14.55

4	More than 50 years	20	9.09
	Total	**220**	**100.00**

Table-2 shows the age-wise distribution of respondents under study, it is observed that a large majority of the study population (110-50%)have less than 30 years of age and then followed by those who have belongs to 30-40 years of age, another 14.55% of the respondents had 40-50 years of age and an only small number (9.09%) of the faculty members have more than 50 years of age. It can be revealed from the above discussion that the majority of the faculty members have young and they have less than 30 years of age.

Table-3Branch wise distribution of the Faculty Members

Sl. No	**Branch**	**Frequency**	**%**
1	Mechanical Engineering	40	18.18
2	Electronics and Communication	80	36.36
3	Computer Science	70	31.82
4	Civil Engineering	30	13.64
	Total	**220**	**100.00**

Above table 3 gives information about Branch wise distribution of Faculty members. It is observed that a considerable number (80-36.36%) of Faculty members belong to Electronics and communication engineering, while 31.82% of the Faculty members belong to Computer Science engineering. While 18.18% of the faculty members are from a Mechanical Engineering background. The remaining 13.64% of them belong to Civil Engineering. It can be inferred that majority of the faculty members are from Engineering and Computer Science when compared to other branches of Engineering under study.

Table-no-4 Type of Information required by the faculty members understudy

Sl. No	**Type of Information**	**Frequency N=220**	**%**
1	Academic information	173	78.64
2	Technical information	125	56.82
3	Research information	68	30.91
4	General information	156	70.91

5	Health information	55	25.00
6	Subject information	111	50.45
7	Information related to government policy / Program	63	28.64
8	Current information	75	34.09
9	Financial information	42	19.09
10	Political information	32	14.55
11	Environment information	12	5.45
12	Others	11	5.00

Table-4 reveals the Type of Information required by faculty members under study. It is observed that a higher percentage of (N=173, 78.64%) of the faculty members need academic-related information followed by those who required General information, which accounts for nearly 70.91% of the total population. While, 56.82% of the faculty members want to know Technical information and subject-related Information (50.45%). On the other hand, they also required current Information (34.09%), Information related to Govt. programs/policy (46, 43.8%), and current Information (32.4%) respectively. However, it was surprisingly noted that environmental and financial information are the least preferred information among the faculty members under study. From the above discussion, it can be inferred that the large majority of the respondents need academic information as they always work in academic settings**.**

Table-5 Types of information channels used to access the needed information

Sl. No	**Information Channels Used**	**Frequency**	**%**
1	Library	130	59.047
2	Internet/ Web	168	76.19
3	Medias	98	44.76
4	Institutions	94	42.857
5	Friends and colleagues	67	30.476
6	Social media	84	38.095

Table 5 depict the information channels used to access information by faculty members, out of 220 respondents, 80 faculty members opined that they will find the needed information on the Internet/Web representing 76.19% of the total study population, and then followed by 62(59.047%) faculty members opined they will find the needed information in the library.

47(44.76%) respondents opined that they will find the needed information in media such as TV, Radio, etc. They also find the needed information from friends/colleagues and social media respectively. It can be concluded that the Internet/ Web and library are the major channels used to access information by the faculty members of engineering colleges under study.

Table -6 Information Literacy Skills among the faculty members

Sl. No	Statement	Mean	SD
1	Ability to Identifying the information needs	3.6	1.35
2	Ability to Selection of possible sources	3.35	1.34
3	Developing successful search strategies	3.17	1.23
4	Accessing sources of information	3.25	1.10
5	Evaluating information sources	3.08	1.20
6	Organizing information for practical application	3.33	1.17
7	Integrating new information into an existing body of knowledge	2.94	1.31
8	Using information in critical thinking and problem solving	2.43	1.0
	Average	**3.13211**	**1.200674**

One of the main objectives of the study was to know the level of awareness of information literacy skills among the faculty members under study. In this regard, questions were asked to indicate the responses on the five-point rating scale, against each statement as shown in the above table, which is designed based on the ACRL standard of information literacy. The response of the respondents was given in the form of descriptive statistics (mean and SD). The highest mean scores of information literacy skill assigned to "Ability to Identifying the information needs" having mean scores of 3.6 with the standard deviation of 1.242, then followed by Ability to select possible information sources with a mean score of 3.35 with a deviation of 1.34 scores. However, there is a least mean scores found in the Ability to apply for base knowledge with a mean of 2.93 and their SD of 1.31 followed by an Evaluation of needed information legally and ethical with a mean score of 2.42 with a std deviation of 1. It can be concluded that the Majority of the faculty members have more awareness of the Ability to Identifying the needed information and the ability to select possible information sources as when compared to other indicators of information literacy.

Table No.7 Results of ANOVA-test between Types of the branch (Mechanical, Electronics and Communication, Computer Science and Civil Engineering) of Engineering College with respect to use of digital resources by the faculty members

Branch	N	Mean	SD	Std. Error		Sum of Squares	df	Mean Square	F	Sig.
Mechanical engineering	40	23.2183	5.4849	.82502	Between Groups	3	119.0	79.3546	8.38	.000
Electronics and Communication	80	25.2041	3.7803	.54005	Within Groups	217	20.12	9.46142		
Computer Science	70	27.3438	4.6670	1.1196	Total	220				
Civil Engineering	30	21.213	4.123	.2354						
Total	220	25.40	4.6936	.45806						

It is observed from the table-7 that The faculty members of engineering colleges belonging to different types of branches (Mechanical Engineering, Electronics, and communication, Computer science and Civil Engineering) have significantly differ with the usage of digital resources by the faculty members of respective branches ($F=8.38$, $p<0.05$) at 5% level of significance. Hence, the null hypothesis is rejected and the alternative hypothesis is accepted. It means that, the faculty members of engineering colleges belonging to different types of branches like Mechanical Engineering, Electronics, and communication, Computer science, and Civil Engineering have differ with the usage pattern of digital resources. It can be concluded that usage rate is different among the different branches under study, which is more in the case of Computer science and Electronics and communication branches (27.3438±4.667) when compared to Civil Engineering (21.213±4.123) and Mechanical engineering (23.2183±5.4849) branches. Therefore, the type of branch is also one of the important independent variable influences on the use of digital resources.

Hypothesis: Gender of the respondent, type of branch, and Information literacy skills, of the faculty members, would not be significant predictors of the use of digital resources by the faculty members.

To test this hypothesis, the multiple linear regression analysis was applied, the results are presented in the following table-8.

Table No.-8 Summary of Linear Multiple Regression Analysis: Independent Variables that is Gender, Types of Branch and Information Literacy skills on of Use of Digital Resources by the Faculty Members of Engineering Colleges under study.

	Regression coefficient	SE of Regression Coefficient	β-value	t-value	sig

(Constant)	14.115	6.829		2.032	.043
Gender of the faculty members (X1)	2.065	2.161	.126	1.9626	.05
Types of Branch (X2)	1.472	2.153	.103	1.184	.211
Information Literacy skills (X3)	2.740	.241	.455	5.185	.000
R=.513, R^2=0.263, F=11.104, p<0.05, std error estimation : 10.503					

Dependent Variable: Use of Digital Resources

The above table indicates that,

1. The effect of gender of the faculty members (X1) of engineering colleges on the Use of Digital Resources is found to be positive and statistically significant at a 5% level of significance. It means that the gender of the faculty members (X1) is influencing positively on Use of Digital Resources by the faculty members of engineering colleges.
2. Type of branch (X2) influencing positively but not statistically significant at 5% level of significance on the Use of Digital Resources by the faculty members. It means that the type of branch (X2) is not influencing significantly on Use of Digital Resources by the faculty members of engineering colleges under study.
3. The influence of information literacy skills (X3) on the Use of Digital Resources by the faculty members is found to be positive and statistically significant at a 5% level of significance. It means that the information literacy skills (X3) are strongly influencing positively on the Use of Digital Resources by the faculty members.

Further, the multiple linear regression equation predicting the use of digital resources by the faculty members (Y) in terms of gender (X1), type of branch (X2), and information literacy skills (X3) of the faculty members were found to be as under:

Use of Digital Resources (Y) = 14.115+.126(X1) +0.103(X2) +.455(X3)

The multiple R^2 of the linear regression equation is found to be .263. For testing multiple correlation coefficients, the F-ratio (11.104) was found to be significant at a 5% level of significance. Thus null hypothesis is rejected and the alternative hypothesis is accepted.

R-value suggests that estimation of use of digital resources by the faculty members is possible on the basis of the predictor variables like gender (X1) and Information Literacy skills (X3) of the faculty members. Further, the regression equation shows that Gender (X1) and Information literacy (X3) can be used as predictors variables to influence on the use of digital resources by the faculty members of engineering colleges under study.

The coefficient of multiple determination of R^2 is 0.263. It can be, therefore, be said that nearly26.3%percent of the variation on the use of digital resources by the faculty members accounted for whatever is measured by gender (X1), type of branch (X2) and information literacy (X3) of the faculty members of engineering colleges can be taken together.

The relative contribution of gender, type of branch, and information literacy skills on the use of digital resources by the faculty members of engineering colleges are presented in the following table.

Table-No: 9 Relative Contribution of Gender, Type of Branch and Information Literacy skills on the use of digital resources by the Faculty Members of Engineering colleges

Independent variables	**β-value**	**r-value**	**βxr**	**% of contribution**
Gender (X1)	.126	0.195	0.02457	2.457
Types of Brach (X2)	.103	0.140	0.01442	1.442
Information literacy (X3)	.455	0.475	0.21704	21.7035
Total	0.684	0.812	0.256025	25.6025

Table No-9 Presents the relative contribution of gender (X1), types of branch (X2) and information literacy skills on the use of digital resources by the faculty members of engineering colleges. The total contribution of all the three explanatory variables on the use of digital resources of faculty members is found to be 25.6025%. In which, information literacy skills (X3) alone contributes maximum that is 21.7035% to the total contribution then followed by 2.457% of gender (X1) and 1.442% of types of the branch (X2) on the use of digital resources by the faculty members of engineering colleges under study. It can be concluded that information literacy skills can be considered as one of the important predictor to influence on the use of digital resources by the faculty members.

11. Major Findings of the Study

Following are the important findings of the study

1. The majority of the study population (N=133-60.45%) belongs to male faculty members and the remaining 39.55% (N=87) of the study population belongs to female respondents.

2. A large majority of the study population (110-50%) have less than 30 years of age then followed by those who have belongs to the 30-40 years of age group.

3. A considerable number (80-36.36%) of Faculty members belong to Electronics and communication engineering, while 31.82% of the Faculty members belong to Computer Science engineering.

4. The large majority (N=173, 78.64%) of the faculty members need academic-related information followed by those who required General information, which represents nearly 70.91% of the total population. Another 56.82% of the faculty members want to know Technical information and subject-related Information (50.45%)

5. Internet/ Web and library are the major information channels used to access the needed information by the faculty members.

6. The majority of the faculty members have more aware of the Ability to Identifying the needed information and the ability to select possible information sources are major indicators of information literacy.

7. The faculty members of engineering colleges belonging to different types of branches have differed significantly with respect to the use of digital resources. It is observed that Computer science and Electronics and communication faculty members use digital resources more when compared to Civil Engineering and Mechanical engineering.
8. The majority of faculty members were not aware of all the indicators of Information Literacy only a few of them have knowledge of all facets of Information Literacy
9. The gender and information literacy skills of the faculty members have a significant influence on the use of digital resources by the faculty members.

10. Information literacy skills can be considered as one of the most important predictor variables to influence the use of digital resources by the faculty members.

12. Conclusion

In the present study, an attempt has been made to study the influence of information literacy skills on the use of digital resources by the faculty members of engineering colleges. Three variables namely Gender, type of Brach, and information literacy skill are considered as independent variables and tested their interaction effect on the use of digital resources. It is observed that information literacy skills can be considered as one of the important predictor to influence the use of digital resources by the faculty members of engineering colleges. From the study, it is observed that based on the findings and review of literature Studies repeatedly show strong positive correlations between the use of digital resources and information literacy programs. Further, it is observed that computer science and electronic and communication faculty members have used digital resources more when compared to others branches of engineering. it is also noticed that the majority of faculty members were not aware of all the indicators of Information Literacy only a few of them have knowledge of all facets of Information Literacy. If they want to be fully information literate, they should have aware of all the indicators of Information Literacy. It is very important to incorporate information literacy skills among the faculty members for better usage of digital resources. Hence, the college libraries should provide the necessary resources and facilities and Information Literacy training for the faculty members to enhance the information literacy skills for

better usage of digital resources in order to attain better academic performance of the faculty members of engineering colleges under study.

References

1. Alison Annet, .Kinengyere (2007). The effect of information literacy on the utilization of electronic information resources in selected academic and research institutions in Uganda. The Electronci library, 25(3), 328-341.
2. ACRL (2000). Information Literacy Competency Standards for Higher Education. (Accessed on 10.04. 21).
3. American Library Association ALA (1989). Presidential Committee on Information Literacy: Final Report. (Accessed on 06.04.21].
4. Baro, Emmanuel E and Fynman, B (2009). Information Literacy among under-graduate students in Nigeria Delta University, electronic Library, 27(4),659-675.
5. Bawden, D (2001). Information and digital litercies: A review of convepts, Journal of Documentation vol(57(2), 218-259.
6. Bruce, C (2000). Information literacy research: dimensions of the emprging collective consciounness. Australian Academic and Research Libraries , 31(2), 91-108
7. Corrall, S. M. (2007). Benchmarking strategic engagement with information literacy in higher education: Towards a working model. ***Information Research***, 12.(1) 45.
8. Dougan , K (2015). Findings the right notes: an observational study of score and recording seeking behaviours of msusic students .Journal of Academic Librarianship 41(1), 61-70.
9. Eisenberg, Michael, B (2008). Inforamtion Literacy: Essential Skills for the information age , DESIDOC Journal of Library and Information Technology , 28(2) 39-46.
10. Fjallbrant, Nancy (2002) . Information Literacy for Scientists and Engineers : Experience of Educate-Dedicate Program. Electronic Library and Information System 34(3), 257-267.
11. Gavisiddappa Anandhalli (2018). Impact of Information Literacy Skills on the Academic Achievement of the Students: A Case Study of Anjuman Degree College, Vijayapura, ***International Journal of Research in Humanities, Arts and Literature,*** 2347-4564, Vol:6(3), 1-16.
12. Hepworth M and Walton G (2009). Teaching Information Literacy for Inquiry Based Leaning, Oxford Press, 2009.
13. IFLA (2005). Beacons of the Information Society, the Alexandria Proclamations on Information Literacy and Life Training Accessed on 19.04.2021.
14. Ilogho, J E and Nikiko,C (2014). Information Literacy search Skills of students in five selected private universities in ogun state, Nigeria : A survey. Library philosophy and practice , 1-20.
15. Islam, M M and Rahman, MA (2014). Assessing Inforamtion Literacy competency of Arts faculty students at the UNIveristy of Dhaka . Library Philosophy and Practice, 2-17.
16. Mackey, Thomas P and Jacobason , Trudi E (2014). Metaliteracy: Reinventiing information literacy to empower learners. Chicago: Amerian Library Association , 65-66.

17. Mahajan Preeti, Kumar Anil (2014). Assessing Inforamtion Literacy Competency in Higher Education : A study of Panjab University, Chandigarh, SRLES. Journal of Inforamtion Mangament, 51 (6) 369-375.

18. Martin J (2013). Refressing Information Literacy : Larning form Recent, British Information literacy Models. Communications in Information literacy, 7(2), 114-124.

19. Matoush, Toby Laigh (2006) . New forms of Information literacy. Reference Services Review, 34(1), 156-162.

20. Maughan , P D (2001) . Assessing information literacy among under graduate : A Discusssion of the literature and the Univeristy of Califorinia – Berkeley Assessement experience. Colleger and Research Libraries, 62(1), 71-83.

21. McKinney P A and Sen, B A. (2012) Reflection for Learning: Understanding the value of reflective writing for information literacy development . Journal of Information Literacy , 6(2) , 110-127.

22. Ozbicakci, S Gezer, N and Bilik O (2015). Comparison of effects of training programs for final year nursing students in Turky: Differences in self efficacy with regard to information literacy , Nurse education Today,35(2), 73

23. Pinto, M and Sale, D (2015). Uncovering information literacy's disci;inary differences through students attitudes: An empirical study. Journal of Librarianship and information science, 4793), 204-15.

24. Ramamurthy, P., Siridevi, E. and Ramu,M. (2015). Information Literacy Search Skills of Students in Five Selected Engineering Colleges in Chittoor District, Andhra Pradesh: A Perspective. ***International Research: Journal of Library & Information Science,*** 5(1), 107-121.

25. Shashong , Fu(2003). Inforamtion literacy education in China in the context of an ifnoramtion society. Journal of China society for scientific and Technical Information , 22 (2) ,238-248.

26. Ukachi, N B (2015). Information Literacy of students as a correlate of their use of electronic resorces in Un iveristy libraries in Nigeria . electronic library, 33(3), 486-500.

27. Welsh and wright. (2010). Information literacy in the digital age. Newchando Publising, pp197-198.

28. Welsh and Wright. (2010). Information Literacy in the Digital Age. New Delhi: Chandos, Publishing, pp. 197-198.

29. Zorkowaski P.G. (1974). The Information Service Environment Relationship and Priorities, No. 5. Accessed on 19.04.2021.