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Use and Awareness of Digital Information Resources (DIRS) By Undergraduate Students: A Survey of Government Degree College for Women Anantnag, Jammu and Kashmir

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Abstract - **In the present age of information revolution and ever increasing demand for exact and consolidated information, the functions and old methods followed by traditional libraries are being replaced by new techniques and technologies. Providing access to information free of charge in electronic formats is a concept that is gaining momentum. Thus with the introduction of modern Information and Communication Technology (ICT), access to information is a precondition for becoming a knowledge society. The right of access to information has become the dominant right in the information and knowledge era. The research output from the universities and research centers need to be collated and disseminated to the information users and information generators. To, address this malady, the Information Literacy comes into picture, which is a set of abilities to recognize when information is needed and have the ability to locate, evaluate and use effectively the needed information. The paper attempts to investigate the Information Literacy levels among the Students of selected institute of higher learning. The survey method has been used, wherein a structured questionnaire was framed up to get the required data and analyzed vis-à-vis the objectives of the study. The major findings of the study reveal that majority of the students are not well versed the concept of information literacy.**

Keywords: **Digital Information, Digital Media, Information Literacy, Under-Graduate Students, Information Communication Technology (ICT), Library and Information Centres (LICs)**

I. INTRODUCTION

The advent of information and communication technology (ICT), and electronic publishing has opened new avenues for scholars to communicate and disseminate their findings to one another. Intellectual works are the information emanating from research and used for national development information and communication technology (ICT) continue to transform the scholarly environment and management of higher institutions school (Kim & Anderson, 2011). ICT has created platforms and opportunities for scholars to work collaborating through extensive infrastructures, with access to resources and knowledge services in borderless environment. Our society has been transformed by the rapid development and diffusion of Information and Communication Technology (ICT). In this age of information explosion, the society is undergoing numerous transformations due to rapid development and transmission of Technological revolution in all the sections of human life. This technological and knowledge driven transformation has intruded into the every aspect of human civilization, which has resulted into what is globally known as Information Society (Tse, Lam, Loh, & Westwood, 2005). Information has become a must for right decision making in today's knowledge society. Earlier, if it was a scarcity of information as a main cause for under-development, but in the current it has become abundance of information. Not only has more information been created in the last two decades than the rest of recorded history altogether, but the simultaneous and ubiquitous global access to that information couldn't have been imaginable a hundred years ago. It is common to all disciplines, to all learning environments, and to all levels of education. It enables learners to master content and extend their investigations, become more self-directed, and assume greater control over their own learning (ACRL, 2000).

A. Institute Profile

To give push to the Woman Empowerment, it was in March 1979 that the Government Degree College for Women came into existence as a full-fledged Arts College for Women. Since its inception, the College has grown in every strength and standard and is marching ahead in pursuit of Excellence offering now various other streams of course apart from Arts stream. In April 1984, the College took the lead in South Kashmir in introducing Science Stream for girl students. It was in March 1997, that the College was allowed to have Sericulture as one of the vocational subjects and it was followed by the introduction of Home Science in the year March 1999 as full-fledged stream and Computer Science Application (B.C.A.) in 2005. The College has its own Web site and on-line facility is kept available for the students (http://womencollegeanantnag.nic.in/). The College has proved to be an apex institution of Higher Education for female Students in District Anantnag and its adjoining areas from the adjacent Districts with primary objective to provide learning opportunities to the female students in a very much conducive atmosphere and in keeping with the recognized standards of academic excellence. The College has been accredited with B^{++} Grade by the National Accreditation and Assessment Council (NAAC) in 2004. The college has been re-Accredited with Grade B+ by NAAC in 2015 with CGPA of 2.81.

B. College Library Profile

The college library is the key Centre and resource of information. The college library is housed in a separate library block which is a double story building comprising of Reading Room, Language Section, Carrier Corner, Circulation Section and Librarian Chamber in the ground floor. Reference Section, Science Section, Arts Section and Browsing Centre in the Ist floor. Besides this, another new library block is also under construction. The library is fully automated using KOHA automation software and is enriched with recent titles books, encyclopaedias and Reference books. The library has a total collection of more than 30,000 titles. Library also subscribes a large number of National Newspapers and magazines and some journals. The library is manned by a professional chief Librarian along with other eight staff members to provide information services to the students. The library has installed an OPAC terminal to facilitate the searching of books

II. REVIEW OF LITERATURE

Various studies have been carried out till date underlying the basic concept of information literacy. The findings and analysis from the published literature and search on Digital Information Literacy reveal some useful and interesting facts that assist in planning, designing and implementing programs to develop as well as measure Information Literacy skills of specific user communities. A Digital Information Literacy programs at University of Texas and Austin serve as a case study for implementing information literacy skills into traditional library services and Collaborative activities (Dupuis, 1997). (Davitt Maughan, 2001) carried out survey of Information Literacy Competencies of graduate students of University of California -Berkeley which examined the extent of which Undergraduate students are information literate. (Parker, 2003) conducted a Study which focused on online information literacy course called MOSAIC (Making Sense Of Information In The Connected Age), and recommended that information literacy is considered at a strategic level in higher education sector.

(Mittermujer & Quirion, 2003) conducted a Study to assess the information literacy skills of the first-year students of Quebec Universities. The findings of the study show that more number of students lack the knowledge of basic skills about the information search process and strongly recommends integrating the Information Literacy programs in the University curriculum. (Kemparaju, 2004) in his study highlights the range of Education programs developed by academic libraries such as literacy campaign, functional literacy and library instructions to make library users as intelligent users of information and also explained the need of information literacy and information technology literacy programs in higher education institutions in the present digital environment. (Bavakutty & Nasirudheen, 2008) carried out a Study to assess the Information Literacy Competency of research students of Kerala University and implies that adequate measures are to be taken in higher educational and research institutions to equip the students with information skills during their graduation/Post-graduation period. (Hadimani & Rajgoli, 2010) conducted a survey to assess the information literacy competency of under graduate students at college of Agriculture, Raichur. The findings of the study revealed that though majority of the respondents have the ability to locate the needed information but lacked the competencies in assessing electronic information. (Issa, et-al, 2015) investigated the information literacy competency of the Undergraduate Students from University of IIorin, Kwara state Nigeria. The study found that majority of the respondents have low level of Information Literacy Competency, expressed their dissatisfaction with their present status of information availability, accessibility and usage. The study recommends that authorities should consider the teaching of information literacy as a course to fresh students. (Birader, B. S., et-al, 2010) conducted a Study to know the information literacy perception of the Bioscience students at Kuvempu University. On the basis of the findings, researchers recommended to introduce an effective information literacy program by collaborating librarians and faculty in Universities

III. OBJECTIVES OF THE STUDY

1. To assess the awareness about Digital Information Resources among the students of various subjects at undergraduate level.
2. To identify areas of strengths and weakness in the use of Digital Information Resources among the target community.
3. To find out how far the under graduate students are able to evaluate the retrieved information.
4. To make recommendations with regard to promoting information literacy at the college level.

IV. HYPOTHESES

1. All the under-graduate students are fully aware about the various Digital Information Resources and there is no significant difference in the awareness of such resources among the students of various subjects.
2. All the undergraduate students use Digital Information Resources and there is no significant difference in the use of such resources among the students of various subjects.

V. SCOPE AND LIMITATIONS OF THE STUDY

The undergraduate students of Government Degree College for Women Anantnag, J&K-India were selected for this study. The study mainly focuses on the Digital Information Literacy skills of targeted research sample in identifying, locating, searching, accessing, retrieving and usage of information from different media. The major limitation of the study being that the study is qualitative, using a small number of sample from a large population.

VI. METHODOLOGY

The survey method has been used to carry out the present study. To collect the primary data, a well structured questionnaire was designed and distributed among the chosen sample of students. The relevant statistical methods were employed for analysis, interpretation and presentation of data. The results and conclusions were deducted and analyzed vis-à-vis, the objectives and purpose of the study. The data collected was tabulated systematically using appropriate softwares.

A. Population Profile

TABLE I SHOWING STREAM-WISE DISTRIBUTION OF COLLEGE STUDENTS

S. No.	Name of the Stream	No. of Students
1	Arts (B.A.)	5914
2	Medical (B.Sc.)	1432
3	Commerce (B.Com.)	128
4	Bachelor of Computer Applications (BCA)	93
5	BBA	114
6	Home Science (BHS)	95
Total		7776

Table I indicates that the highest number of students is enrolled under the Arts Stream, followed by the Medical Stream, while as the lowest number of students are enrolled under the Computer Science Stream. The total population under study is 7776,

B. Sample Size

For present study Sample size was statistically determined by using Krejcie and Morgan (1970) formula:

$$S= X^2NP\ (1-P)/d^2\ (N-1) + X^2P\ (1-P)$$

S= required sample size
X^2 = the table value of chi square for 1 degree of freedom at the desired confidence level (1.96x1.96= 3.841)
N= polpualtion size
P= The populatioon proportion (assumed to be 0.5 since this would provide the maximum sample size)
d= degree of accuracy expressed as proportion, (0.05)

The population of the students and faculty under study was 7576. Further, to ensure an optimal sample size, the 95% confidence level was pre-assigned and a small sampling error (0.05) was fixed. Let the population distribution be 50%, and then applying the above formula following sample size was calculated as:

S=3.841x7776x0.5(1-0.5)/0.0025(7776-1)+3.841x0.5(1-0.5)
S = 7466.90/20.39
S= 366. 20

As tyhe sample has to be divided into seven equal parts, it should be the nearest multiple of 6, which is 360, thus the sample size for present study is 360.

C. Administartion of the Tool

As the present study is a survey based research work, sampling method was adopted for data coollection. The total sample size was divided into six equal parts and as such questionnaires were administered among the students of various subjecdt streams. 60 questionnaires were administered among each stream of subjects avaliable in the college. Stratified sampling method was adopted for administration of the tool among the students of various facultuies and then simple random sampling was followed in each stratum. The response rate was 100% as the rersearcher himself interacted with all the respondents and personally distributed and collected back all the questionnaires. As suck the study is based on the data collected through 360 questionnaires. .

VII. DATA ANALYSIS AND INTERPRETATION

Data collected during the survey using the data collection tool was tabulated and analyzed using appropriate statistical techniques. Chi Square Test was used for hypothesis testing.

A. Use of Digital Information Sources by the Students

TABLE II USE DIGITAL INFORMATION RESOURCES BY THE STUDENTS

S. Stream	User Response		N
	Yes	No	
B.A	27 (45.00)	33 (55.00)	60 (100)
B.Sc.	40 (66.66)	20 (33.33)	60 (100)
B.Com	31 (51.66)	29 (48.33)	60 (100)
BCA	56 (93.33)	04 (06.66)	60 (100)
BBA	48 (80.00)	12 (20.00)	60 (100)
BHS	46 (76.66)	14 (23.33)	60 (100)
Total	248 (68.88)	112 (31.11)	360 (100)

(Figures in the parenthesis represent percentages)

Table II indicates that out of total 360 students 248 use DIRs while as 112 students do not use DIRs for their academic needs. It was also found that the most no. of students from computer Science discipline use DIRs, followed by the Management Stream and the students from Arts stream are the least users of DIRs.

B. Awareness about the Various Digital Information Resources among the Students

Table III indicates that maximum no of students fully aware about DIRs while as the least no of students are fully unaware. The highest no of students aware about the DIRs belong to the Computer Science Faculty while as the least no students belong to the Arts Faculty.

TABLE III AWARENESS ABOUT THE VARIOUS DIGITAL INFORMATION RESOURCES AMONG THE STUDENTS

S. Stream	User Response					N
	Fully Aware	Partially Aware	Neutral	Partially Unaware	Fully Unaware	
B.A	10 (16.66)	15 (25.00)	11 (18.33)	17 (28.33)	07 (11.66)	60 (100)
B.Sc.	17 (28.00)	22 (36.66)	09 (15.00)	06 (10.00)	06 (10.00)	60 (100)
B.Com	16 (26.66)	18 (30.00)	08 (13.33)	11 (18.00)	07 (11.66)	60 (100)
BCA	31 (51.66)	20 (33.33)	02 (3.33)	05 (08.33)	02 (03.33)	60 (100)
BBA	26 (43.33)	14 (23.33)	08 (13.33)	05 (08.33)	07 (11.66)	60 (100)
BHS	21 (35.00)	25 (41.66)	06 (10.00)	05 (08.33)	03 (05.00)	60 (100)
Total	121 (33.61)	114 (31.66)	44 (12.22)	49 (13.61)	32 (08.88)	360 (100)
Chi Square Test Chi-square=4.58 d. f. = 1 Table Value ($\chi^2\alpha$) = 3.84						

(Figures in the parenthesis represent percentages)

Chi square test was applied to the likert scale for test the hypothesis. Two groups were taken for the test, excluding the 'Neutral' option. It was found that the calculated value 4.58 is greater than the table value 3.84 at 5% significance level with degree of freedom 1.

As such the Null hypothesis is rejected. Hence we conclude that the user population is widely distributed in their use of Digital Information Resources.

C. Reasons for not using Digital Information Resources by the Students

Table IV reflects the reasons for not using the DIRs by the under graduate students. The table depicts that Lack of awareness about the DIRs is the main hurdle that comes for less use of such resources at the undergraduate level. The table also depicts that Arts students are facing many problems in using the DIRs as compared to their Science counterparts.

TABLE IV REASONS FOR NOT USING DIGITAL INFORMATION RESOURCES BY THE STUDENTS

S. Stream	User Response					N
	Lack of ICT knowledge	Computer anxiety	Lack of Time	Lack of awareness	Other Reasons	
B.A	29 (48.33)	12 (20.00)	04 (6.66)	07 (11.66)	08 (13.33)	60 (100)
B.Sc.	18 (30.33)	05 (08.33)	13 (21.66)	15 (25.00)	09 (15.00)	60 (100)
B.Com	12 (20.00)	03 (05.00)	11 (18.33)	20 (33.33)	14 (23.33)	60 (100)
BCA	03 (05.00)	04 (06.66)	19 (31.66)	18 (30.00)	16 (26.66)	60 (100)
BBA	04 (06.66)	08 (13.33)	12 (20.00)	17 (28.33)	19 (31.66)	60 (100)
BHS	09 (15.00)	06 (10.00)	17 (28.33)	11 (18.33)	17 (28.33)	60 (100)
Total	75 (20.83)	38 (10.55)	76 (21.11)	88 (24.44)	83 (23.05)	360 (100)

(Figures in the parenthesis represent percentages)

TABLE V ANOVA: TWO-FACTOR WITHOUT REPLICATION

Summary	Count	Sum	Average	Variance
Computer anxiety	6	38	6.33	10.67
Lack of Time	6	76	12.67	27.47
Lack of awareness	6	88	14.67	23.47
Other Reasons	6	83	13.83	19.77

TABLE VI ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit.
Columns	257.79	3.00	85.93	4.48	0.02	3.29
Error	287.46	15.00	19.16		α = 0.05	
Total	664.63	23.00				

ANOVA Two-Factor without Replication was run for the table to test the hypothesis. The results of the ANOVA suggest to reject the null hypothesis as the calculated value of F is larger than the critical value, which indicate that there is a significant difference in students of various faculties for not using the DIRs.

VIII. CONCLUSION AND RECOMMENDATIONS

As the world becomes increasingly globalized and technological and information expands, a non-information literate student is likely to find the variety of information sources and the quantity of information overwhelming and threatening. Information literacy is the ability to use information and communication technologies to find, evaluate, create and communicate information, requiring both cognitive and technical skills. Digital technology and information provides new opportunities for students to pursue their interests and find educational resources experience and courses anytime and anyplace. In such a digital environment scenario, delivery of information literacy instructions to students is becoming progressively more important due to the proliferation of electronic resources and the increased use of the Internet as an information source. Thus, information literacy is an important component of any higher educational library system, because its role in academic achievement and lifelong learning. Consequently, it is argued that a deficiency in Information literacy skills has a negative impact on academic achievement as well as personal and professional development. It can be concluded that the majority of the students are not able to access relevant information, because they lack information literacy skills.

The following recommendations can be underlined for consideration:

1. Information literacy should be incorporated at the Undergraduate as well as Post-graduate curricula,
2. It is also recommended that the College management should commit itself to provide the necessary infrastructure and guidelines for the implementation of information literacy programs in the campus,
3. The college library should be adequately staffed and funded, so that to enable them to assist the students to search for information from different media,
4. There is urgent need to conduct the user awareness programs such as on-hand workshops, training programs and User education programs on using digital information resource which are most useful for study and research.

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