STUDENT'S AWARENESS ABOUT DIGITAL INFORMATION SOURCES: A STUDY OF B.V.B. COLLEGE OF ENGINEERING AND TECHNOLOGY, HUBBALLI

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ABSTRACT

The purpose of the present study is to examine the awareness of the digital information resources by the students of BVBCET, Hubballi. A questionnaire was designed which covers aspects like awareness, purpose, use of digital information sources by the students of different branches of engineering. The total student population of the BVBCET is 4800; hence, it is decided to take a sample of 5% of the total population, comprising the sample size of 240 students. Out of 240 questionnaires distributed, only 149 duly filled in questionnaires were received back with a response rate of 62.04%. The results of the study reveal that (a) A total of 100% respondents are aware of digital information resources, (b) majority of the respondents use digital information resources for project work (c) more than 50% respondents opine that digital information resources save time.

KEYWORDS: BVBCET, Digital Information Resources, Internet Technology,

1. INTRODUCTION

The Internet and the World Wide Web has earmarked a new information environment and there is a tremendous information overload on the web. The Internet is a massive network of networks which connects millions of computers globally, forming a network in which any computer can be communicated with any other computer as long as they are both connected to the Internet.

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The internet technology has revolutionized the growth and proliferation of electronic resources. Intangible sources of information and media have replaced the traditional tangible sources. Digitization of sources has been extensively carried out and organizations today have built their own digital libraries, institutional repositories and web portals. E-resources may be defined as a document or data source in electronic format which may be accessed digitally. The data may be text, image or multimedia. E-resources may be accessed either directly through a peripheral storage like CD/DVD or over the internet. E-resources may take the form of e-books, e-journals, e-databases, e-newsletters and so on (Taneja and Goswami, 2013).

E-resources have several advantages over print resources, primarily being convenience, ease of access and reduced cost. E-resources may be accessed by multiple users simultaneously. The same resource may contain multiple forms of data like audio, video, images and text. These inherent benefits have led to considerable growth in the available resources which make their distribution and proliferation a demanding but challenging task.

2. BVB COLLEGE OF ENGINEERING & TECHNOLOGY, HUBBALLI

The versatile manifestations of engineering have had a profound and lasting impact on our civilization. From the grandeur of the pyramids and man's journey into the space, to the recent information revolution, engineering continues to fascinate and enthrall. The B. V. Bhoomaraddi College of Engineering and Technology (BVBCET), believes in kindling the spirit of this unique and creative discipline in every student who enters its portals. Preparing them for a world in which their contribution truly stands apart. The college was established in 1947 by the Karnataka Lingayat Education (KLE) Society. The BVBCET has achieved an enviable status due to a strong emphasis on academic and technical excellence. From the modest beginning with the college offering only the Undergraduate programme in civil engineering, the college has indeed come a long way with the college now offering 12 UG and 8 PG programmes affiliated to the Visvesvaraya Technological University

(VTU), Belagavi and is recognized by AICTE, New Delhi and accredited by National Board of Accreditation (NBA) (http://bvb.edu/about.html).

The current annual student intake for the Undergraduate & Post Graduate programmes is more than 1200. The continuous and painstaking endeavours and commitment towards education and scholarly activities of the extremely qualified and dedicated academicians and faculty members have resulted in the college gaining Autonomous Status from the University and the UGC. The college has adopted the Outcome Based Education (OBE) framework which catalyzes the curriculum to the needs of the industry and the society. An innovative pedagogical practice in the teaching learning processes forms the academic ecosystem of the institution. The active involvement of the faculty in research has led to the recognition of 13 research centers by the University.

3. ABOUT THE BVBCET LIBRARY

The Central Library and the IT Enclave is a proud addition to the campus. A high-tech building with over 65,000 sq.ft. area has a delightfully peaceful ambience where study becomes a pleasure and where learning and research are in absolute harmony. The well-designed, comfortable and serene interior can accommodate over 350 students. The Central Library is computerized and enabled with online transactions. The Library has an interactive website through which OPAC and book reserving etc. are enabled. The library also has Digital Library having 20 computers and online access to many e-packages. The Central Library of BVBCET is satisfying the needs of its users within its existing resources. The total collection of the library is 78,000 including Books, Current and Back Volumes of Technical periodicals, standards and technical reports. It provides lending reference, book bank and reprographic services to its 5000 users.

4. NEED AND PURPOSE OF THE STUDY

The exponential growth and development of the Information and Communication Technologies (ICTs) have created a lot of opportunities as well as challenges for an effective use of information and knowledge resources for the academic and research activities. In this context, the

information literacy in general, digital information literacy skills and competencies in particular are required to explore all the potentials of digital, electronic and online resources. Hence, the present study is carried out to explore the various digital information literacy sources among the undergraduate students studying in BVBCET-Hubballi. The study will immensely be helpful for the professional staff as well as for the concerned authorities to develop the need based digital information sources.

5. OBJECTIVE OF THE STUDY

The main objectives of the studies are...to

1) know the awareness and use of Digital Information resources by the students of BVBCET-Hubballi.
2) examine the purpose of using the Digital Information Resources.
3) study the effective use of various electronic databases by the engineering students.
4) find out the problems encountered while using the Digital Information Resources by the engineering students.
5) focus on various advantages of the Digital Information Sources over the traditional print resources

6. METHODOLOGY

A Survey method of research was adopted and a structured questionnaire was designed keeping in mind the objectives of the study to collect the data from the undergraduate students of BVBCET, Hubballi. The questionnaire covers awareness, purpose, use and difficulties in the use of digital information sources by the students of different branches of engineering. The total student population is 4800, and it is decided to take a sample of 5% of the whole population, comprising the sample size of 240 students. The researcher has distributed 240 questionnaires and received 149 duly filled in questionnaires with the response rate of 62.04%.

7. ANALYSIS AND INTERPRETATION

Table – 1: Department-Wise Respondents

Sl. No.	Department	No. of respondents
1.	Architecture	17 (11.42)
2.	Automation & Robotics	10 (6.71)
3.	Automobile	10(6.71)
4.	Biotechnology	11(7.38)
5.	Civil	12(8.05)
6.	Computer Science	12(8.05)
7.	Electrical & Electronics	10(6.71)
8.	Electronics & Communication	12(8.05)
9.	Industrial Production	16(10.74)
10.	Information Science	11(7.38)
11.	Instrumentation	14(9.4)
12.	Mechanical	14(9.4)
Total		**149(100)**

Figures in parenthesis indicate percentage

Out of the 240 questionnaires distributed, 149 students responded and the branch wise response is presented in Table -1. The highest response (i.e 11.42%) has come from the Architecture department (17) followed by the Industrial Production with 10.74% responses, the Instrumentation and Mechanical with 9.4% responses each. The response rate from the Architecture, Industrial Production, Instrumentation & Mechanical are more compared to the other departments.

7.1 Awareness and Use of Computers

One of the basic skills to use information in the present digital environment is the Computer Literacy. It is basically an Engineering institution and naturally the students should possess the basic computer skills. However, an attempt has been made on finding the use of computers by the students. The response is presented in Table -2.

Table – 2: Awareness and Use of Computers

Sl. No.	Response	Nos.
1	Yes	149 (100.0)
2	No	0 (0.0)
Total		149(100.0)

Figures in parenthesis indicate percentage

Table 2 shows that all the users, i.e 149(100.00) respondents are aware of the use of computers and use computer(s) since it is essential to posses computer literacy skills. Hence the result.

7.2 Awareness of Digital Information Resources

A question raised to know the awareness on the digital information sources (web resources) was sought from the students. The response in this context is presented in Table -3.

Table -3: Awareness of Digital Information Resources

Rank	Digital resources	Response
1	Wikipedia	145(97.3)
2	YouTubes	137(91.9)
3	Search Engines	129(86.6)
4	Online Dictionaries	127(85.2)
5	FaceBook	126(84.6)
6	Google Groups	126(84.6)
7	Blogs	123(82.6)
8	Slide Share	123(82.6)
9	Online Journals	118(79.2)
10	Online Databases	108(72.5)

Figures in parenthesis indicate percentage

Table 3 shows the awareness of digital information resources. Digital Information resources are invaluable research tools which complement the print resources. The study reveals that 97.3% of the respondents are aware of Wikipedia, followed by You Tubes (91.9%), Search engines (86.6%), Online Dictionaries (85.2%), Face book (84.6%), Google groups (84.6%), Blogs (82.6%), Slide shares (82.6%) , Online journals (79.2%) and the least preferred is online databases with 72.5%. The study reveals that almost all the users are aware of the digital information resources which is prerequisite for the students studying in the engineering disciplines.

7.3 Importance of Digital Information Resources

The students were asked to know the importance of these digital information resources for the study. The responses are presented in Table-4.

Table – 4: Importance of Digital Information Resources

Sl. No.	Digital Information Resources	Strongly Agreeing	Agreeing	Uncertain	Disagreeing	Strongly Disagreeing
1	Online Databases	61(40.9)	62(41.6)	17(11.4)	4(2.7)	5(3.4)
2	Search Engines	83(55.7)	53(35.6)	10(6.7)	3(2.0)	0
3	Blogs	64(43.0)	52(34.9)	28(18.8)	4(2.7)	1(.7)
4	Wikipedia	96(64.4)	49(32.9)	3(2.0)	1(.7)	0
5	YouTube	79(53.0)	53(35.6)	12(8.1)	1(.7)	4(2.7)
6	SlideShare	68(45.6)	51(34.2)	21(14.1)	7(4.7)	2(1.3)
7	Online Dictionaries	80(53.7)	49(32.9)	17(11.4)	2(1.3)	1(.7)
8	Face Book	53(35.6)	50(33.6)	26(17.4)	10(6.7)	10(6.7)
9	Google Groups	81(54.4)	46(30.9)	15(10.1)	2(1.3)	5(3.4)

Figures in parenthesis indicate percentage

Out of the 149 respondents, 96(64.4%) respondents strongly agree that Wikipedia is the most important tool for the study. This is followed by the Search Engines 83(55.7%), Google Groups, Online Dictionaries come in the order of preference and the least preferred source is Facebook with 53 (35.6%) respondents. In all 62(41.6%) respondents agree that the Online databases are the most important sources of Digital Information, followed by Search Engines and YouTube and so on. The least was Google Groups 46(30.9%). The overall response for Strongly Agreeing and Agreeing ratings come to 70% to 90% and the Wikipedia and Search Engines are the most sought digital sources with 145 and 136 respondents respectively. The YouTube, Online Dictionaries are next with 132 and 129 responses and so on.

7.4 Purpose of Using Digital Information Resources

The students need information resources for various purposes, like regular academic class work, to gain new knowledge and most importantly the final year students need them for their project work. Some of the identified purposes are enlisted and the students were asked to express their opinion. The responses were ranked according to the number of responses received from the users. The data is presented in Table-5.

Table 5: Purpose of Using Digital Information Resources

Sl. No.	Purpose	No of Respondents
1	For project work	32(21.5)
2	To gain knowledge	30(20.1)
3	IEEE Competitions	28(18.8)
4	Writing articles	22(14.8)
5	General knowledge	19(12.8)
6	Preparing for GATE, GRF, IES etc	18(12.1)
	Total	149(100.0)

Figures in parenthesis indicate percentage

It is evident from the study that majority, i.e 32 (21.5%) respondents use DIRs for completing project work, followed by, 30 (20.1%) respondents use to gain knowledge, 28 (18.8%) respondents use to prepare for IEEE competitions, 22 (18.8%) use for writing articles, 19 (12.8%) for getting general knowledge and 18 (12.1%) respondents use for preparing GATE, GRE, IES examination etc.

7.5 Use of Databases Subscribed By the Library

The BVBCET library is subscribing to several online databases both full text and bibliographic. The library is subscribing to as many as seven e-databases in different subjects. The responses from the students are presented in Table – 6

Table 6: Use Of E-Databases Subscribed By The Library

Sl. No.	E-databases	No of respondents
1	IEEE	69(46.3)
2	EBSCO	31(20.8)
3	Springer	16(10.7)
4	Elsevier Science Direct	11(7.4)
5	ASCE	9(6.0)
6	J-Gate	8(5.4)
7	ASME	5(3.4)
	Total	149(100.0)

Figures in parenthesis indicate percentage

The Table – 6 presents the data on the use of e-databases by the respondents. Out of seven databases the IEEE is used by most of the respondent's i.e. 69 (43.6%), followed by EBSCO with 31 (20.8%) respondents, 16 (10.7%) respondents use Springer, and 11 (7.4%) respondents use Elsevier Science Direct. The respondents have given least preference to ASCE 9 (6.0%), J-Gate 8 (5.4%) and ASME 5 (3.4%). The results are in agreement with the subject scope of the databases. For example the ASCE and ASME are specialized in Civil Engineering and Mechanical Engineering and only students from these streams will use them. On the other hand, IEEE and EBSCO cover wide range of subjects, hence the usage is more for these e-databases.

7.6 Problems Faced While Using Digital Information Resources

The respondents faced different problems while using the e-resources. The data are presented in Table – 7.

Table – 7: Problems Faced While Using Digital Information Resources

Sl. No.	Problems	No of respondents
1	Slow Internet	75(50.3)
2	Inadequate e- databases/ e- journals	23(15.4)
3	Paid access	21(14.1)
4	Less relevant information	16(10.7)
5	Lack of search options	14(9.4)
Total		149(100.0)

Figures in parenthesis indicate percentage

It is found from Table (7) that 75 (50.3%) of respondents indentified slow Internet connection followed by, 23 (15.4%) respondents said that there were inadequate of e-databases and e-journals, whereas, 21 (14.1%) respondents have identified that some of the articles are paid one, less relevant information and lack of search options are other problems faced by the respondents.

7.7 Advantages of Digital Information Sources Over Conventional Sources

The digital information resources have some advantages which are enlisted and the responses from the respondents were sought. The data are presented in Table -8.

Table 8: Advantages of Digital Information Sources Over Conventional Sources

Sl.No.	Advantages	Respondents
1	Saves Time	77(51.7)
2	Keep up to date	20(13.4)
7	24X7 access	19(12.8)
4	No geographical restriction to access	11(7.4)
5	User friendly options	11(7.4)
3	Access to different file formats	7(4.7)
6	Both browse and search options are available	4(2.7)
Total		149(100.0)

Figures in parenthesis indicate percentage

The data shows that the highest number of respondents, i.e . 77(51.7%) have expressed that the Digital Information Resources save users' time. Whereas, 20 (13.4%) respondents keep update, followed by, 19 (12.8%) respondents who have expressed 24X7 access, 11 (7.4%) respondents use these sources since there is no geographical boundary and lot of user friendly options. The other advantages are listed and presented in table 8.

8. CONCLUSION

The vast growth of Information and Communication Technology (ICT) particularly the internet has changed the traditional methods of retrieval and transmission of information. The internet has emerged as a powerful tool for the storage digital information. The internet has enabled the students to enhance their academic performance by providing them the current information and access to worldwide information. The present study shows that digital information resources are found to be significant among the engineering students to get the relevant and desired information.

The data about the use of digital information sources reveals that the users preferred to use digital information sources compared to print sources because of their structure and easy retrieval are the advantages over print materials. Hence, libraries must make all possible efforts to subscribe more digital information sources.

It also reveals that the digital information resources have a positive impact on the library users. The present trends in digital information sources suggest a change in the status of collection development. As the Information and Communication Technology (ICT) advances, the emphasis of academic libraries should focus more on acquiring more digital information sources, so that users can best use of digital information sources to fulfill their academic assignment and also for conducting research activity.

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