



DIGITIZATION STATUS OF THESES AND PROJECTS IN ENGINEERING COLLEGE LIBRARIES OF VIDARBHA REGION

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ABSTRACT

The emergence of the web has fundamentally affected most aspects of information communication, including scholarly communication. The immediacy that characterizes publishing information to the web, as well as accessing it, allows for a dramatic increase in the speed



of dissemination of scholarly knowledge. But, the transition from a paper-based to a webbased scholarly communication system also poses challenges. However, currently there are no time tested mechanisms to safeguard the long-term integrity of the web-based digitized scholarly records. Hence, robust solutions to

combat the problems are needed. Currently, the traditional documents like books, reports, theses, dissertations, etc. are getting converted into the digital formats (Singh et al., 2007).

KEYWORDS: Digitization Status, information communication, Research Methodology.

INTRODUCTION

Theses and Dissertations are known to be the rich and unique source of information, often the only source of research work that does not find its way into various publication channels. Theses and dissertations remain an un-tapped and under-utilized asset, leading to unnecessary duplication and repetition that, in effect, is the anti-theses of research and wastage of huge resources, both human and

financial (Chopra 2005). The UGCs directions are such that the content should become available online as online availability of electronic theses through centrally-maintained digital repositories will not only ensure easy access and archiving of Indian doctoral theses but will also help in raising the standard and quality of research. This would overcome serious problem of duplication of research and poor quality resulting from the "poor visibility" and the "unseen" factor in research output.

The greatest advantage of digitization is avoiding duplication in research work, ensuring quick retrieval of information, promoting resource sharing, and providing a permanent solution to the problem of space. Theses and Project are useful documents for further research and must be made accessible to everyone irrespective of their physical location in India the access policy to the theses collection varies from college to college, university to University. In view of the importance of the digitization in the field of engineering college libraries vis-à-vis theses and reports, it is necessary that a study be carried out to its status. This study is carried out with a view to know study whether the engineering college libraries in Vidarbha region have initiated the digitization process and also their status with respect to infrastructure, equipments and library's collaboration for providing e-services and resource sharing to the users.

RESEARCH METHODOLOGY

In the present study, a careful collection of facts was undertaken by the researcher to ensure the validity of the facts. The present study was carried out in three steps involving reconnaissance, data collection and analysis, followed by interpretation of statistics.

STUDY AREA – VIDARBHA REGION

Vidarbha is the eastern region of Maharashtra state made up of Nagpur Division and Amravati Division. It comprises of 11 districts namely, Amravati, Akola, Bhandara, Buldana, Chandrapur, Gadchiroli, Gondia, Nagpur, Wardha, Washim, Yavatmal.

RESEARCH DEIGN, UNIVERSE AND SCOPE OF THE STUDY

In this research "Descriptive" research design was adopted. All the librarians working in the engineering colleges in the Vidarbha region were considered as a universe of study. All the engineering colleges in the Vidarbha region i.e. 67 were selected in this study.

SELECTION OF SAMPLE AND SAMPLE SIZE

This study concentrated on assessing the status of the digitization of Theses and Projects in Engineering College Libraries of Vidarbha Region. Since, this process was expected to be carried out in the libraries; the librarians working in these libraries were the sample of this study. In the present study 67 librarians working in the Engineering College Libraries of Vidarbha Region were selected as sample for data generation.

COLLECTION OF DATA

The data collection was carried out by using structured questionnaire and by following survey method. The development of questionnaire was carried out in view of the objectives of the study. The process of developing the research instrument for this study was based on generally accepted principles of instrument design, and was carried out according to the standard methodology.

RELIABILITY AND VALIDITY

Reliability of the instrument was assessed using the test-retest method, which allowed determining the repeatability of the instrument. The validity of a measure refers to the extent to which it measures what it was intended to measure. Three different types of validities are generally considered, which are content, construct and criterion-related validity.

STATISTICAL ANALYSIS OF DATA

Analysis of data has been done with the help of appropriate statistical tests. The descriptive statistics, such as frequency, mode, percentage, etc were determined from the collected data. All the statistical analysis was carried out by using SPSS 18.0 Software.

ANALYSIS AND INTERPRETATION OF DATA Number of Library Users (UG Students)

Students UG	No of Respondents	Percent	Valid Percent
Below 500	9	13.4	16.1
500 -1000	14	20.9	25.0
1001-1500	14	20.9	25.0
1501 - 2000	9	13.4	16.1
2001-2500	5	7.5	8.9
2500 above	5	7.5	8.9
Total	56	83.6	100.0
No Response	11	16.4	
Total	67	100.0	

Table 1: Information regarding the No. of Library Users (Total)

Table 1 illustrates results obtained from the respondents regarding the importance of the information regarding the No. of Users of the library of the Engineering Colleges of the Vidarbha region. The results indicate that majority (25.0%) users of the library of the Engineering Colleges in the study area have 500- 1000 and (25.0%) 1001-1500 users respectively. On the basis of data obtained from the study it was obvious that the majority libraries of the Engineering Colleges of Vidarbha region have 500- 1000 (25.0%) and 1001-1500 (25.0%) no. of users respectively.

Number of online Projects	No of Respondents	Percent	Valid Percent
20	1	1.5	14.3
24	1	1.5	14.3
75	1	1.5	14.3
89	1	1.5	14.3
122	1	1.5	14.3
200	2	3.0	28.6
Total	7	10.4	100.0
No Response	60	89.6	
	67	100.0	

Number of Online Projects in the Engineering Colleges

Table 2: Number of Online Projects in the Engineering Colleges

Table 2 illustrates results obtained from the respondents regarding number of Online Projects in the Engineering Colleges of the Vidarbha region. The results indicate that the majority (28.6%) libraries of the Engineering Colleges of the Vidarbha region had 200 no. of online projects. On the basis of data from the study it was observed that the majority (28.6%) libraries of the Engineering Colleges of the Vidarbha region.

Number of Ph. D. Theses available in the Libraries of Engineering Colleges

SN	Subject	Total no. of Theses	Percent
1	Physics	4	16.0
2	Chemistry	2	8.0
3	Computer Science	1	4.0
4	Electrical Engineering	10	40.0
5	Electronics & Telecommunication	3	12.0
6	Civil Engineering	4	16.0
7	VLSI	1	4.0
8	Information Technology	_	_
9	Power Engineering	_	-
10	Mechanical Engineering	_	_
	Total	25	100.0

Table 3: Number of Ph. D. Theses available in the Libraries of Engineering Colleges

Table 3 present results regarding the number of Ph. D. Theses available in the libraries of Engineering Colleges of Vidarbha region. The data shows that there are 10 Ph. D. Theses of Electrical Engineering subject, while 4 Ph. D. Theses each are of Physics and Civil Engineering, 3 Ph. D. Theses of Electronics & Telecommunication, 2 Ph. D. Theses of Chemistry, and 1 each Ph. D. Theses of Computer Science and VLSI subjects. On the basis of the data, it is concluded that highest number of Ph. D. Theses are available in the Libraries of Engineering Colleges, which are for Electrical Engineering subject.

Number of Dissertations available in the Libraries of Engineering Colleges

SN	Subject	Total no. of Dissertations	Percent
1	Computer Science	125	9.4
2	Information Technology	60	4.5
3	Electronic Engineering	172	12.9
4	Electrical Engineering	187	14.0
5	Electronics & Telecommunication	168	12.6
6	Civil Engineering	166	12.4
7	Mechanical Engineering	233	17.5
8	VLSI	20	1.5
9	Chemistry	1	0.1
10	Others	203	15.2
	Total	1335	100.0

Table 4: Number of Dissertations available in the Libraries of Engineering Colleges

Table 4 present results regarding the number of Dissertations available in the libraries of Engineering Colleges of Vidarbha region. The data indicated that there are 233 Dissertations of Mechanical Engineering subject, 203 other subjects while 187 Dissertations of Electrical Engineering subject are available. Moreover, 172 Electronics Engineering and 168 and 166 Dissertations of Electronics & Telecommunication and Civil Engineering subject respectively are available in the Libraries of Engineering Colleges. Furthermore, 125 Dissertations of Computer Science subject respectively are also available. In addition to above, the Dissertations of Information Technology and VLSI are fewer i.e. 60 and 20. In view of the study results, it is concluded that highest number of dissertations are available for mechanical engineering subject.

Number of Project Reports available in the Libraries of Engineering Colleges

SN	Subject	Total no. of Project Reports	Percent
1	Computer Science	1775	19.1
2	Information Technology	926	10.0
3	Electronic Engineering	946	10.2
4	Electrical Engineering	1070	11.5
5	Electronics & Telecommunication	1399	15.1
6	Civil Engineering	705	7.6
7	Mechanical Engineering	1246	13.4
8	VLSI	47	0.5
9	Others	1179	12.7
	Total	9293	100.0

Table 5: Number of Project Reports available in the Libraries of Engineering Colleges

Table 5 present results regarding the number of Project Reports available in the libraries of Engineering Colleges of Vidarbha region. The data indicated that there are 1775 Project Reports of Computer Science subject, while 926Project Reports of Information Technology, 946 of Electronics

Engineering, while further 1070 Project Reports of Electrical Engineering subject are available. Moreover, 1399 Project Reports of Electronics & Telecommunication subject are also available in the Libraries of Engineering Colleges of Vidarbha. In addition to above, 705, 1246 and 47 no. of Project Reports are available with respect to Civil Engineering, Mechanical Engineering and VLSI Subjects respectively. In the backdrop of above information, it is concluded that relatively number of project reports are noticeably higher than theses and dissertations with computer science subject leading amongst all the engineering subjects.

Availability of the equipments for digitization of thesis, dissertations and reports

Availability of the Favinments	Yes		No		No Response		Total
Availability of the Equipments	No.	Percent	No.	Percent	No.	Percent	Total
Scanner	46	68.7	6	9.0	15	22.4	67
Web Server	36	53.7	7	10.4	24	35.8	67
Bar Code Reader	45	67.2	5	7.5	17	25.4	67
Thumb Impression Machine	35	52.2	11	16.4	21	31.3	67
Digital Camera	28	41.8	15	22.4	24	35.8	67
CCTV	21	31.3	23	34.3	23	34.3	67
Printers	49	73.1	3	4.5	15	22.4	67
CD Writer	46	68.7	3	4.5	18	26.9	67
DVD Player	35	52.2	10	14.9	22	32.8	67
Reprographic Machine	41	61.2	7	10.4	19	28.4	67
Pen Drive Slot	43	64.2	1	1.5	23	34.3	67
Projector	24	35.8	15	22.4	28	41.8	67
UPS	42	62.7	1	1.5	24	35.8	67

Table 6: Information regarding the availability of the equipments in the libraries of theEngineering Colleges

Table 6 illustrates results obtained from the respondents regarding the availability of the equipment's in the libraries of the Engineering Colleges of the Vidarbha region. The results indicated that the majority of 68.7%, 53.7%, 67.2, 52.2%, 31.3%, 41.8%, 73.1%, 68.7%, 52.2%, 61.2%, 64.2, 35.8%, 62.7% of libraries of the Engineering Colleges of the Vidarbha region had availability of the Scanner, Web Server, Barcode reader, Thumb Impression Machine, Digital Camera, CCTV, Printers, CD writers, DVD players, Reprographic machine, Pen Drive Slot, Projector, UPS in their libraries. From the collected data of the study it was evident that the majority of libraries of the Engineering Colleges of the Vidarbha region had availability of the Scanner, Web Server, Barcode reader, CCTV, Printers, CD writers, DVD players, Reprographic machine, Pen Drive Slot, Projector, UPS in their libraries. From the collected data of the study it was evident that the majority of libraries of the Engineering Colleges of the Scanner, Web Server, Barcode reader, Thumb Impression Machine, Digital Camera, CCTV, Printers, CD writers, DVD players, Reprographic machine, Pen Drive Slot, Projector, UPS in their libraries.

Status of Digitization

Status of	Yes		No		No l	Response	Total
Digitization	No.	Percent	No.	Percent	No.	Percent	Total
Theses	3	4.5	25	37.3	39	58.2	67
Dissertations	5	7.5	23	34.3	39	58.2	67
Projects	12	17.9	17	25.4	38	56.7	67

Table 7: Information regarding Status of Digitization in the libraries of the Engineering Colleges

Table 7 illustrates results obtained from the respondents regarding the Status of Digitization in the libraries of the Engineering Colleges of the Vidarbha region. The results indicated that the majority of (37.3%), (34.3%) and (25.4%) libraries had not undergone digitization. Whereas (4.5%), (7.5%) and (17.9) of the libraries had undergone the digitization process of the library. From the collected data of the study it was evident that the majority of (37.3%), (34.3%) and (25.4%) libraries not undergone digitization.

Pendency of Theses & Projects Digital Collection Set up

Table 8: Information regarding pendency of Theses and Projects digital collection set up inLibraries of Engineering Colleges

Setting up of Digital Collection	Frequency	Percent	Valid Percent
1 Year or Less	1	1.5	6.7
1-3 years	10	13.4	60.0
3-5 years	4	6.0	26.7
Total	15	22.4	100.0
No Response	52	77.6	
Total	67	100.0	

Table 8 illustrates results obtained from the respondents regarding since when the setting up of digital collection of Theses & Projects is due. The results indicated that the majority of (60.0%) libraries were due for the setting up of digital collection of Theses & Projects since 1-3 years. From the collected data of the study it was evident that the majority of (60.0%) libraries were due for the setting up of digital collects since 1-3 years.

CONCLUSIONS

The information management and access has seen tremendous change in the 21st century in all the fields, with technical education not an exception. Most of the information today is accessed through the internet or to through the computers. However, the digital readiness has become an important aspect as far as using the current information retrieval. Today digital libraries are needed both to let libraries offer new and improved services, and to deal with a cost crisis now affecting their current services. The data collected in this study revealed that many engineering college libraries are finding it very difficult to maintain their digital as well as traditional collecting practices within the constraints of their institutional budgets. Though many librarians are looking at the new technology as a solution, there are many barriers to realize this objective. The specific conclusions drawn from this study point towards inability of many librarians to cope up with the new technologies related to digitization, lack of infrastructure and related facilities to name a few. Thus, in view of the study results, it is necessary that a comprehensive digitization strategy should be formulated so that all the theses, dissertations and project reports available in the engineering colleges of Vidarbha region are digitized.

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