

## A STUDY OF ENGINEERING STUDENT'S APPROACH ON DIGITIZATION WITH SPECIAL REFERENCE IN ACADEMIC LIBRARY

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### Abstract :

Academic Library digitalization may be defined as information systems capable of storing, preserving and providing access to the knowledgeable output produced by the participants of a given organization. Within the specific environment of a college a digital library may underwrite to growth its brightness and importance within academia as it concentrates and promotes the results of research activities carried out in the organization. Closely related to concept of an institutional repository is the Open Access movement. Open Access means free online right to use to digital scholarly material – mainly peer-reviewed research articles but also to that authors wish to make freely available to all students online. Analysis of data collected from a sample of 147 faculties in Paavai College of Engineering, Namakkal by administering a questionnaire method reveals that 79.9 percent of the students are agree that the Digital library quality and information service, 86.0 percent of the respondents were felt that agree Digital Library is Helpful to obtain for students, 29.20 percent of respondents felt that satisfied in web based from the Libraries Services.

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### KEYWORDS :

Digital library, Digital documents, Digital repository, Academic libraries, E-Resource.

### INTRODUCTION

Digital adaptation of academic library resources has traditional expeditiously years, prompting some causal observers to believe that everything of importance can be found on the World Wide Web in digital. But instant access to the entire world's wisdom is still more than a mouse click away. It is important to resist the urge to digitize everything in a library or archival collection and destroy the originals in a mad rush to save space or occupy a place on the cutting edge. Digitization is an outstanding method of so long as right to use to library resources, but the machinery, in its present state of improvement, is not satisfactory for archival protection. Digitization has established to be likely for virtually all setup records. This study will provide an overview of the digitization of library material, explore the advantages and disadvantages of digitization, and explore some of the many issues involved in selecting and developing a digital library collection.

DSpace is designed to operate as a centralized, institutional service. Different communities within the institution such as labs, centers, schools or departments can have their own separate areas within the system. Members of these communities deposit content directly via a Web user interface designed to make this depositing as simple as possible. Alternatively the system features a batch item importer for the bulk loading of content. Each community may also appoint people as 'gatekeepers', who may review and edit submissions before their inclusion in the main repository. The DSpace system then indexes the metadata submitted with the digital item and makes it available according to the access privileges determined by the community. In order to provide a workable service in the available time, DSpace was developed 'breadth-first'. In other words, each of the basic requirements of an institutional digital repository system was addressed in a relatively simple manner, so that functionality can evolve with the service already in production.

### NEED FOR DIGITATION IN ACADEMIC LIBRARY

In its most basis sense, the term "digitization" discusses to the adaptation of resources that were initially generated in alternative set-up an electronic form, conversely, the definition excludes materials that were initially created digitally, such as

email communication. The word "image" is literally true because the digital scanner create an image of the original analog item, whether that item is a photograph, a word – processed document, or a handwritten letter. The digital image created by the scanner is stored in numeric form.

#### **The Benefits**

Digitization brings together research information on topics, which are available in various formats in various locations. These digital materials/sources may be widely scattered. Thus, digitization allows easy access allowing to build collection and compare items which can be viewed/examined side solely by virtue representation and access to digital reference materials especially images that provide a great deal of information to researchers.

Can be easily merged with alerting services

Contain multimedia information

Duplication of digital resources is easy.

Easy to transfer to any place on internet instantly

Facility to create multi-media resources

It has enhanced intellectual control along with new finding tools

It has provide links to bibliographic records

Resource sharing among libraries

Support Information retrieval

There is an increased manipulation of text and images

#### **DISADVANTAGE**

Bandwidth problem in accessing multimedia resources and full text-journals

Copyright

Environment:

Librarians are way of the new technology.

Requires special skills to set up and maintain Librarian

Scanning to original documents of the entire collections

Speed of access

The main drawback is the cost of digitization and preservation of files. In this aspect one can justify the cost of digitizing of a unique collection such as the collection of SERC

User has to accept the media formats

#### **LITERATURE REVIEW**

Chen, M., & Reilly, M. (2011) University of Houston Digital Library (UHDL), provides access to collections of digital materials related to the institutional memory of the university and to areas connected to its teaching, research, and cultural missions. Recently, a variety of image archives have been processed and preserved. Demonstrates the development of preservation metadata strategies at UHDL and the preservation of Metadata Encoding Transmission Standard (METS) records generated from customized "7train" based on Dublin Core (DC) descriptive metadata and NISO Metadata for Images in XML Schema (MIX) technical metadata using two open-source software tools (JHOVE and 7train). We are able to produce complete METS records for digital objects preserved. Ivanovic (2012) discussed the extension of the Current Research Information System (CRIS) at the University of Novi Sad, Republic of Serbia, to incorporate electronic theses and dissertations (ETDs). Data describing ETDs is entered using a web application that enables researchers to input their own data through a webpage without knowing the standards on which the system is based. The ETDs repository can exchange data with CRIS institutional repositories and Networked Digital Library of Theses and Dissertations members. In this way, the international visibility of theses and dissertations created at the University of Novi Sad is enhanced without duplicating data entry in various systems. This approach has been verified and tested on a dataset of theses and dissertations at the University of Novi Sad

#### **METHODOLOGY**

This research has been adopted for the study of the survey method using the questionnaires are administered and returned in the month of January 2014. To proceed sample from 389 final year students was respondent out of 487 Students (Electronic and Communication Engineering, Electrical and Electronic Engineering, Computer Science Engineering, Information Technology, Mechanical Engineering.). In addition, random sampling method was used for distribution of questionnaire as it was not likely to collect data from all the goal respondents under the scope of the study and data analysis using SPSS 16.0 version. The following tools have been used for the study Percentage and Chi-square.

#### **OBJECTIVES**

To know the department wise student respondents

To identify the digital library quality and information service

To know the digital library is helpful to obtain for students

To find out the Use of Electronic Sources for Information  
 To know the Digital Library Improvement of Status & Service Areas  
 To identify satisfaction level of digital library status & information center

The study has been undertaken only PCE final year students. Due to the time factor more samples could not be collected. Since the college were far off more questionnaires was collected.

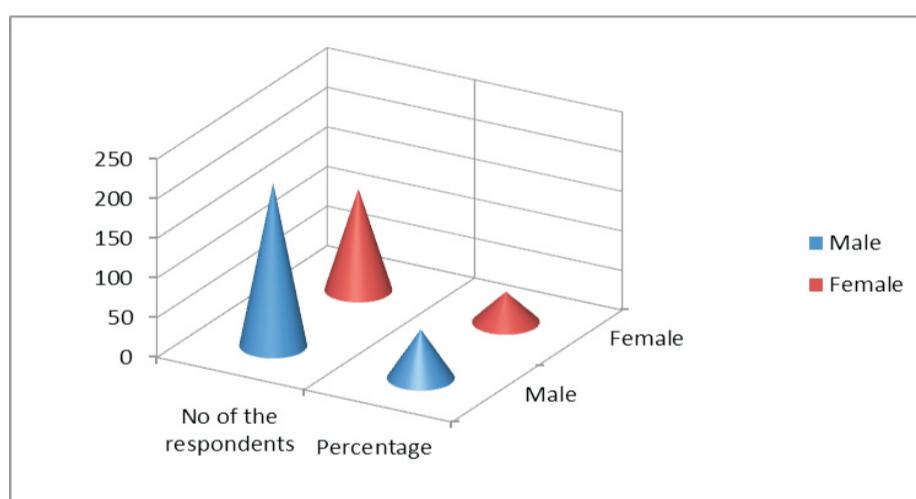
#### DATAANALYSIS

Study of data is the indefinite stage in a research method. It is the relation between raw data and column data are most important results, primary to conclusions. This process of analysis has to be resulted in standard towards.

**Table - 1 Department and Gender wise Students respondents**

S.No.	Departments	Male	Female	Total
1	ECE	54 (16.2%)	30 (9.0%)	84 (25.1%)
2	EEE	40 (12.0%)	25 (7.5%)	65 (19.5%)
3	CSE	54(16.2%)	34 (10.2%)	88 (26.3%)
4	IT	26 (7.8%)	17 (5.1%)	43 (12.9%)
5	MECH	32 (9.6%)	22 (6.6%)	54 (16.2%)
<b>Total</b>		206 (61.7%)	128 (38.3%)	334 (100.0%)

It reveled from the above table indicated that highest (26.3%) of respondents have CSE students, which is followed by (25.1%) of respondents have ECE students (19.5%) of respondents have EEE students (16.2%) of respondents have Mechanical students (12.9%) of respondents have IT students.



**Figure. 1 Gender wise Respondents**

Above the figure shows that out of 334 respondents, 61.68 % of the respondents are male students remaining 38.32 % of the respondents are female students.

**Table - 2 Digital library quality and information service**

S.No.	Departments	Agree	Disagree	No Pinion	Total
1	ECE	63 (18.9%)	8 (2.4%)	13 (3.9%)	84 (25.1%)
2	EEE	51 (15.3%)	8 (2.4%)	6 (1.8%)	65 (19.5%)
3	CSE	74 (22.2%)	5 (1.5%)	9 (2.7%)	88 (26.3%)
4	IT	31 (9.3%)	3 (9%)	9 (2.7%)	43 (12.9%)
5	MECH	48 (14.4%)	0 (0.0%)	6 (1.8%)	54 (16.2%)
<b>Total</b>		267 (79.9%)	24 (7.2%)	43 (12.9%)	334 (100.0%)

The department wise distribution on stratification of Digital library quality and information service among the surveyed engineering students revealed that a majority (79.9%) of respondent are agree, (12.9%) of respondent No Pinion,

(7.2%) of the respondents are disagree.

**Table - 3 Digital Library is Helpful to obtain for students –Gender wise**

S.No.		Agree	Disagree	No Pinion	Total
1	Male	180 (53.9%)	20 (6.0%)	6 (1.8%)	20 (61.7%)
2	Female	47 (14.1%)	17 (5.1%)	64 (19.2%)	128 (38.3%)
	<b>Total</b>	227 (68.0%)	37 (11.1%)	70 (21.0%)	334 (100.0%)

The Gender wise distribution of data with regard to use digital library is helpful to obtain for students found that a highest percentage of Male (53.9%) and Female (14.1%) are Agree, which is followed by 19.2 percent of female respondents and (1.8%) of the male respondents are having no pinion, followed by (6.0%) of male respondents and (5.1%) of the female respondents are having disagree.

**Table - 4 Use of Electronic Sources for Information – Gender Wise**

Use of electronic source of information	Male	Female
Blogs	16 (4.6)	11 (3.2)
CD-ROM Databases	15 (4.3)	23 (6.6)
Online Databases	32 (9.2)	37 (10.7)
Portals	32 (9.2)	12 (3.5)
Subject Gateways	24 (6.9)	17 (4.9)
Websites	25 (7.2)	27 (7.8)
Wikipedia	45 (13.0)	31 (8.9)
	189 (54.5)	158 (45.5)

The Gender wise distribution of data with regard to Use of Electronic Sources for Information found that a highest percentage of Male (13.0 percent) preferred Wikipedia and Female (10.7 percent) preferred Online Databases. The other e-resources usage between Male and Female respondents differs significantly, male are more preferred Online Databases and Portals (9.2 percent), Websites (7.2 percent) Subject Gateways (6.9 percent), while higher percent of female respondents preferred Wikipedia (8.9 percent), Websites (7.8 percent), CD-ROM databases (6.6 percent), Subject Gateways (4.9%), Portals (3.5 percent) and Blogs (3.2 percent). A less number of male respondents preferred Blogs (4.6 percent) and CD-ROM Databases (4.3 percent).

**Table - 5 Digital Library Improvements of Status & Service Areas**

S.No.		Male	Female	Total
1	E-Journals	185 (55.4%)	45 (13.5%)	230 (68.9%)
2	E-Books	4 (1.2%)	50 (15.0%)	54 (16.2%)
3	Dissertations	6 (1.8%)	16 (4.8%)	22 (6.6%)
4	Patents and Standards	4 (1.2%)	13 (3.9%)	17 (5.1%)
5	Question papers	7 (2.1%)	4 (1.2%)	11 (3.3%)
	<b>Total</b>	206 (61.7%)	128 (38.3%)	334 (100.0%)

The Gender wise distribution of data with regard to use of Digital Library Improvements of Status & Service Areas found that a highest percentage of Male (61.7 percent) reaming Female (38.3 percent) of respondent. The other digital library improvements of status & service areas between Male and Female respondents differ significantly, Female are more preferred E-books (15.0 percent), E-Journals (13.5 percent), while higher percent of Male respondents preferred e-journals (55.4 percent) and Dissertations (1.8 percent). A less number of male respondents preferred E-Books and Patents and Standards (1.2 percent) and Question papers (2.1 percent).

**Table – 6 Satisfaction level of digital library status & information center**

Opinion	Male	Female	Total
Very dissatisfied	19 (27.94)	12 (26.09)	59 (10.77)
Dissatisfied	09 (13.24)	10 (21.74)	63 (11.50)
Unsure	14 (20.59)	07 (15.21)	107 (19.53)
Satisfied	16 (23.53)	14 (30.43)	160 (29.20)
Very satisfied	10 (14.71)	03 (6.52)	159 (29.01)

The overall satisfaction among the respondents in surveyed colleges library vary between the categories and as to the five point ratification on the extent of use of digital library status & information center. A Fair number of respondetns felt Satisfied (29.20 percent) and Very Satisfied (29.01 percent) in terms of the overall web based lirbary services from the academic library. It is also important note to that nearly around one-third of the respondents felt that digital library service as dissatisfied (11.50 percent) and very dissatisfied (10.77 percent). The same trend is prevailed among the category of the respondents. Majority of the male rated the the overall digital library status & information center is among the surveyed College library as Satisfied (30.43 percent). It is inferred that the Studetns are very much satisfied in terms of digital resources access than others.

**Table – 7 Association between Department and Digital library**

H<sub>0</sub>: Digital library is not associated with department  
H<sub>1</sub>: Digital library is associated with department

S.No.	Association between Department and Digital library	Chi-Square Tests Value	df	Asymp. Sig. (2-sided)	Result
1	Department and Digital library quality and information service	12.397 <sup>a</sup>	8	.134	NS
2	Department and Digital Library is Helpful to obtain for students	7.351 <sup>a</sup>	8	.499	NS
3	Department and Digital Library Improve Status & Information Centre	19.675 <sup>a</sup>	8	.012	S

NS : Not Significant, S : Significant

The above chi-square tests table indicates that Digital library quality and information service, Digital Library is Helpful to obtain for students are not associated with gender since their p-values (0.134 and 0.499) are greater than the usual threshold value of 0.05. Therefore we accept the null hypothesis and reject the alternative hypothesis.

The above chi-square tests table indicates that Digital Library Improve Status & Information Centre is associated with gender since their p-value (0.012) is less than the usual threshold value of 0.05. Therefore we rejected the null hypothesis and accepted the alternative hypothesis.

## CONCLUSION

Academic libraries are interested in the digital library, but do not have the accessible documents to exploring its usefulness. It is unfortunate that the digitalization has become an issue when academic libraries and funding agencies are facing budget crises. Many libraries simply cannot afford to investigate the potential of the digital library on a large scale as they concentrate their resource on maintaining the more traditions service. The main barriers to wider use of digital library information resources are not technological but financial. Thus the digitations are both an opportunity and challenge for academic libraries. The willingness among librarians, information scientists or documentation officers for adopting multimedia technology is a must for preservation of important and regularly and documents. In India and world wide much remains to be done in research, development and implementation before we can assume that even a small portion of our digital heritage will survive more than few years.

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