Digital Collection and Development Initiatives in Engineering College Libraries: An Analytical Survey

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ABSTRACT

The purpose of this paper is to study the initiatives on digital collection and development in engineering college libraries in the Rayalaseema Region of Andhra Pradesh. Eighty-one engineering college libraries in Rayalaseema Region have been surveyed to assess the initiatives taken on digital collection and development. This paper highlights opinions of librarians on most preferred digital materials and various digital resources acquainted with their library. The digital library initiatives cover a variety of activities starting from the digital collection building, digitization, digital collection, maintenance, and digital preservation. It is found that 34.57% of libraries are in the process of building digital collections, which is an encouraging trend among Engineering Educational Institutions in Rayalaseema Region.

Introduction

The Digital library is a field with an incredibly rich, and, as yet, poorly chronicled pre-history and early history. There is a stream of work and ideas that reaches back to at least the turn of the 20th century, and includes such thinkers as H.G. Wells and Paul Otlet; later contributors (Lynch, 2005) to the pre-history of visions of new, technologically-enabled means of knowledge organization. Ioannidis defined digital library (Ioannidis, 2005) as the meeting point of many disciplines and fields, including data management, information retrieval, library sciences, document management, information systems, the web, image processing, artificial intelligence, human-computer interaction, and digital curation. The technical and engineering basis for digital libraries also reaches back several decades, to the 1960s, and includes online research and commercial information services, library automation systems, document structuring and manipulation systems, human computer interface work and a wealth of other efforts.

This paper sets out to survey on digital collection and development initiatives in Engineering College Libraries in Rayalaseema region of Andhra Pradesh. It goes on to discuss various existing digital resources acquainted in engineering college libraries. A structured questionnaire was framed to collect

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primary data. Eighty-one engineering college libraries in Rayalaseema Region have been surveyed to assess the initiatives taken on digital collection and development. This paper highlights opinions of librarians on most preferred digital materials and various digital resources acquainted with their library.

Review of Literature

As a starting point, we should assume that digital libraries are libraries with the same purposes, functions, and goals as traditional libraries' collection development (Cleveland, 1998) and management, subject analysis, index creation, provision of access, reference work, and preservation. A narrow focus on digital formats alone hides the extensive behind-the-scenes work that libraries do to develop and organize collections and to help users find information.

Smith (2001) defined a digital library as an organized and focused collection of digital objects, including text, images, video and audio, with the methods of access and retrieval and for the selection, creation, organization, maintenance and sharing of collection. Though the focus of this definition is on the document collection, it stresses the fact that the digital libraries are much more than a random assembly of digital objects. They retain the several qualities of traditional libraries such as a defined community of users, focused collections, long-term availability, and the possibility of selecting, organizing, preserving and sharing resources.

Digital libraries are organizations that provide the resources, including the specialized staff, to select, structure, offer intellectual access to, interpret, distribute, preserve the integrity of, and ensure the persistence over time of collections of digital works so that they are readily and economically available for use by a defined community (Leiner, 1998) or set of communities. With the technology available at an affordable cost, the libraries are initiating small digitization projects as individual library or as a group of libraries, Building up digital collection (Lynch, 2005) and the infrastructure required to access them is a challenge that every library has to deal with. Initiatives on digital collection and development have become a significant part of institutional libraries.

One way to characterize the period from about 1994-2004 is that it represents the first time that digital library (Raziuddin, 2004) research could really get substantial programmatic funding from the major research funding agencies in the United States. The U.S. National Science Foundation, in collaboration variously with DARPA, NASA, the National Library of Medicine and the National Institutes of Health, the Library of Congress, the National Endowment for the Humanities, the Institute of Museum and Library Studies established two major competitive funding programs – the Digital Libraries Initiative and DLI-2 – through which researchers in higher education systematically engaged in the construction and analysis of digital library prototypes and research in both the underlying technologies and social implications surrounding these systems. This funding legitimized digital libraries as a field of research.

Characterizations of digital collections vary widely in the literature (e.g., International Council of Museums/CIDOC, 2002); (Johnston & Robinson, 2002). Traditional user-based collection criteria are still being considered in the design of selected digital collection services (Lagoze & Fielding, 1998). Permanence is emphasized by some, while others stress transience or are neutral on the subject. Collection developers, curators, and users may be highly visible or largely unacknowledged.

Collections have been conceptualized as contexts for information seeking (Lee, 2000) and bodies of raw materials for interpretation and presentation (Lynch, 2002).

Kumar, Hussain, and Singh (2008) surveys the technical institute libraries in Ghaziabad, Utter Pradesh, India. The study, the article indicates, seeks to determine a profile of each library, including its collection of materials, tools that users can utilize its collection, the budget of the library, and the user-population characteristics.

Mendel and Panda. (2005) provides an insight into the different dimensions of collection development with specific reference to the Engineering College (EC) Libraries. Analyses data on library collections received from 17 major EC Libraries of West Bengal. Enumerates the activities of seven major library consortiums of the world engaged in sharing resources among EC Libraries.

Westbrook and Watkins (2012) provides suggestions for libraries with digital collections about how to create a system that efficiently captures patron requests and streamlines staff delivery of high-resolution files. Becker and Monks (2013) survey the current landscape of digital collections of agricultural experiment station and cooperative extension documents, after which they present a recent, efficient digitization project at the University of Idaho Library as a possible template for other institutions looking to digitize similar documents.

Blecic (1999) examines the correlations between these three measures at an academic health sciences library. Data were gathered from 1992 to 1994 using each of the three methods. Each set of data was compared with the other two, and for each pair of data sets both Spearman Rank Order and Pearson Product-Moment correlation coefficients were calculated to examine the degree of correlation between the two sets.

Objectives

- To know the occurrence of digital library in engineering institutions.
- To provide an overview of some of the major components and activities involved in creating good digital collections.
- To identify existing resources that support the development of sound local practices for building and managing good digital collections.
- To ascertain the knowledge of librarians on various skills and abilities on information and communication technology in order to build a successful digital collection.
- To appraise the attitude and opinion of librarians on preferred digital library collection, digital conversion facilities and metadata standards.

Limitation

- The study covers the attempts of the engineering educational institutions established before the year July 2010.
- The survey covers only the librarians of the respective institutions and the semi professionals not covered (Assistant Librarian, Library Assistant and others).

Methodology

Although, there are about 99 Engineering Educational Institutions under different managements in Rayalaseema region of Andhra Pradesh, this study has considered 92 institutions, which were established before 2010, and the questionnaire were administered. Since engineering educational Institutions established after 2010 lack appropriate infrastructure facilities in their libraries, they are excluded from the study. Research method followed was a survey method. A structured questionnaire was used to collect data. It is to be mentioned that a total 81 libraries have been identified and surveyed. For the purpose of description, the sample libraries have been grouped under the following categories;

- Government Engineering Educational Institutions
- Private Minority Engineering Educational Institutions (include Christian & Muslim minority Institutions)
- Private Engineering Educational Institutions

Out of which 81 (88.04%) have responded, figure1 presents the data about the distribution of questionnaires and the responses received. A majority (72) of the respondents (88.89%) belongs to Private Engineering Institutions. About 3.70% response belongs to Private Minority Engineering Institutions and only 7.41% belong to Government Institution. This shows that the privatization of Engineering Education in Rayalaseema region is a more dominating phenomenon.

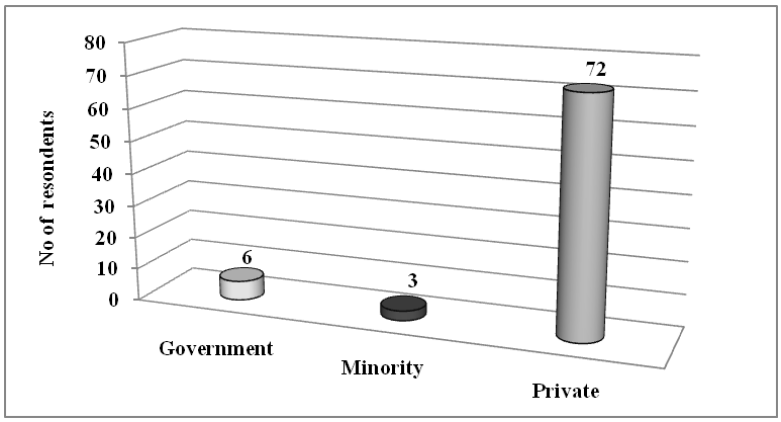

Fig. 1. Number of responses received

Data Analysis and Interpretation

The received questionnaires were carefully edited tabulated and analysed. To make the data analysis statistically sound, necessary statistical techniques (SPSS) and diagrams are used.

Types of Institutions Vs Digital Collection Development

The digital library initiatives cover a variety of activities starting from the digital collection building, digitization, digital collection maintenance, and digital preservation. The data in Table 1 provides the initiatives towards digital collection development in the libraries under survey. It is found that 34.57% of libraries are in the process of building digital collections, which is an encouraging trend among Engineering Educational Institutions in Rayalaseema Region.

Table 1. Types of Institutions Vs Digital Collection Development

S.No	Digital Collection Development	Type of Institution			Total
		Govt	Minority	Private	
1	Yes	3 (3.70)	1 (1.23)	24 (29.63)	28 (34.57)
2	No	3 (3.70)	2 (2.47)	48 (59.26)	53 (65.43)

(Figures in Parentheses indicate percentage)

Types of Institutions Vs Preferring Digital Materials

The librarians were asked to state the reasons for preferring digital materials and the response were analysed in Figure 2. It is interesting to note that 72.84% respondents state that digital materials are preferred for LAN, which 58.02% opine digital materials 'occupy less space', 'accessible anywhere and anytime' and they feel the digital material are 'easy to access the latest version of documents', while 45.68% are contented using a digital form of documents.

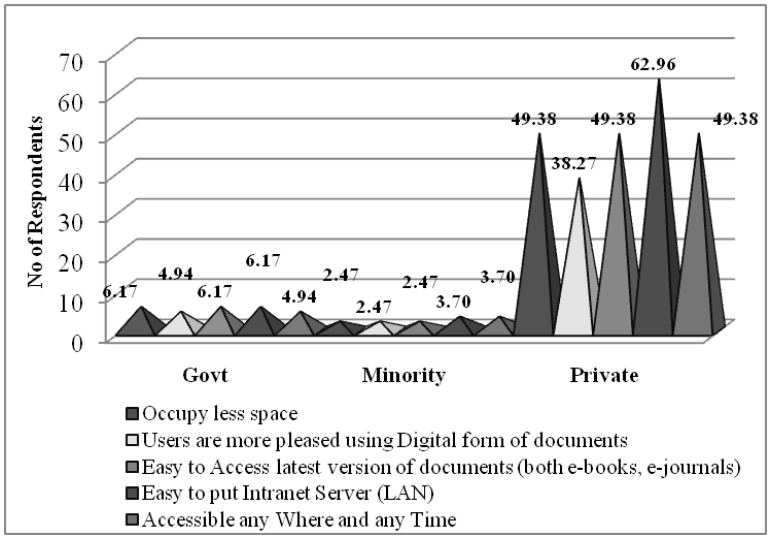

Fig. 2. Preferring digital materials

Bivariate (2-Tailed) analysis for Preferring Digital Materials by Respondents

The data in Table 2 represent the variable codes of reasons for preferring digital materials.

Table 2. Reasons for Preferring Digital Materials (Variables and Variable Codes)

S.No	Variable Code	Variable Name
1	PDM A	Occupy less space
2	PDM B	Users are more pleased using Digital form of documents
3	PDM C	Easy to Access latest version of documents (both e-books, e-journals)
4	PDM D	Easy to put Intranet Server (LAN)
5	PDM E	Accessible any Where and any Time

To test the level of the significance between two variables in the analysis for preferring digital materials and types of institution has been studied with the Bivariate Correlation analysis (2-tailed). The correlation measures (Wang, 2010) the strength of the linear relationship between numerical variables. The objective is not to use one variable to predict another, but to show the strength of the linear relationship that exists between the two numerical variables. The results are presented in Table 3. The correlation between the variables is significant at the level in 0.01 and 0.05.

Table 3. bivariate (2-Tailed) analysis for Preferring Digital Materials by Respondents

Variable Code	PDM A	PDM B	PDM C	PDM D	PDM E
PDM A	1.000				
PDM B	.780**	1.000			
PDM C	.442**	.579**	1.000		
PDM D	-.126	.281*	.212	1.000	
PDM E	.290**	.579**	.493**	.605**	1.000

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

The following are the inferences from the results of bivariate analysis:

ⅰ. “Accessible anywhere, anytime” Vs “Easy access the latest version of documents” is significant.
ⅱ. “Easy to put Intranet Server (LAN)” Vs “Occupy less Space” and “Users are more pleased using a digital form of documents” is not significant.

Digital Resources acquainted in the Library

Nearly all documents are currently created in digital form. Whether to maintain them on paper or in digital form is a basic, but important decision. While the Internet Archive captures snapshots of the Web, institutions may take it upon themselves to do more focus archiving in a more thorough

manner. With regard to digital resources acquainted with the library, the respondents were asked to state the types of digital resources they are building in their respective libraries. The results are shown in Table 4. It was found that 50.62% use materials that exist in digital form, while 45.68% do not have any idea about it and only 3.70% create their own digital resources. It should be one third of librarians have expressed their ignorance about the type of digital collection they possess.

Table 4. Types of Institutions Vs Types of Digital Resources

S.No	Digital Material used in the Library	Type of Institution			Total
		Govt.	Minority	Private	
1	Born Digital (only exists in digital form)	3 (3.70)	2 (2.47)	36 (44.44)	41 (50.62)
2	Digitally Created	0	0	3 (3.70)	3 (3.70)
3	No Idea	3 (3.70)	1 (1.23)	33 (40.74)	37 (45.68)

(Figures in Parentheses indicate percentage)

Mode of Acquiring Digital Materials

It is possible to acquire digital resources by more than one means and methods. The respondents' opinion on this aspect has been presented in table 5. It is observed that the majority of librarians (93.83%) 'harvest digital materials from web' while 18.52% from 'outright purchase' and get 'licensed from vendor' respectively and 9.88% prepare their own digital materials.

Table 5. Types of Institutions Vs Mode of Acquiring Digital Materials

S.No	Acquire Digital Materials	Type of Institution			Total
		Govt.	Minority	Private	
1	Donation	0	0	2 (2.47)	2 (2.47)
2	Outright Purchase	2 (2.47)	1 (1.23)	12 (14.81)	15 (18.52)
3	Licensed from a Vendor	3 (3.70)	0	12 (14.81)	15 (18.52)
4	Own preparation	1 (1.23)	0	7 (8.64)	8 (9.88)
5	Harvested from Web (downloaded)	6 (7.41)	3 (3.70)	67 (82.72)	76 (93.83)

(Figures in Parentheses indicate percentage)

In order to find out the similarities of the various modes of acquiring digital materials, cluster analysis has been applied. The variables and variable codes are shown in Table 6.

Cluster Analysis for Mode of Acquiring Digital Materials

Table 6. Modes for Mode of Acquiring Digital Materials (Variables and Variable Codes)

S.No	Variable Code	Variable Name
1	ADM A	Donation
2	ADM B	Outright Purchase
3	ADM C	Licensed from a Vendor
4	ADM D	Own preparation
5	ADM E	Harvested from Web (downloaded)

The resulting Dendrogram is shown as Figure 3. It is seen from the Dendrogram that at the 38% level two clusters have been formed.

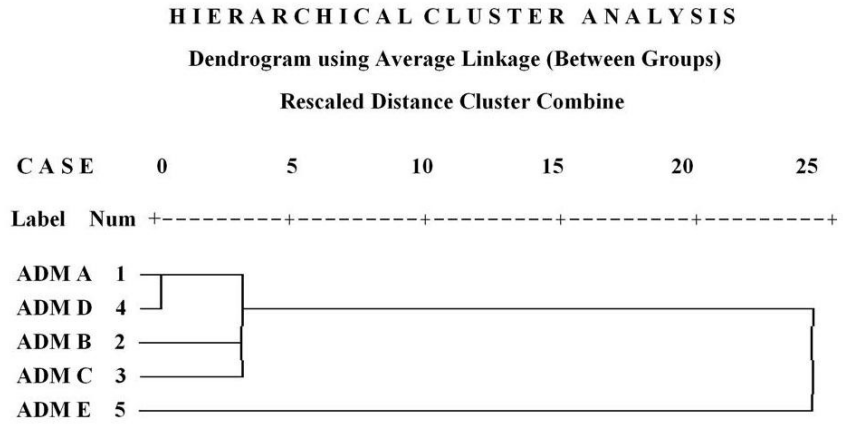

Fig. 3. Dendrogram for mode of acquiring digital materials

In cluster 1, only one variable has been grouped as shown in table 7. The agree and disagree ration 15.67:1, which means that acquiring digital material from the web is the most practical method for acquiring digital material.

Table 7. Cluster 1: Most Preferred Mode of Acquiring Digital Materials

S.No	Variable Code	Variable Name	Agree	Disagree
1	ADM E	Harvested from Web (downloaded)	76	5
	Total		76	5

N = 81

Agree: 76 **Disagree: 5**

Agree ratio: 76/81 = 0.94 **Disagree ratio: 5/81 = 0.06**

Agree and Disagree Ratio (0.94:0.06) = 15.67: 1

In cluster 2, four variables have been grouped as shown in table 8. The agree, disagree ratio is 0.13:1 which means that these are the best means of acquiring of digital materials as practiced by the respondents.

Table 8. Cluster2: Least Preferred Mode of Acquiring Digital Materials

S.No	Variable Code	Variable Name	Agree	Disagree
1	ADM A	Donation	2	79
2	ADM D	Own preparation	8	73
3	ADM B	Outright Purchase	15	66
4	ADM C	Licensed from a Vendor	15	66
	Total		40	284

N = 81

Agree: 40 **Disagree: 284**

Agree ratio: 40/81 = 0.49 **Disagree ratio: 284/81 = 3.51**

Agree and Disagree Ratio (0.49:3.51) = 0.13:1

Types of Institutions Vs Electronic Resources (Consortium)

It is observed from table 9 that the majority of the institutions (55.56%) are provided with electronic resources while 44.44% institutions are not provided with e-resources. Table 10 provides about information about various e-resources provided in various institutions. Most of the institutions (56.79%) are provided by the INDEST - AICTE Consortium, while 19.75% institutions with J-GATE and 2.47% with UGC-Info net.

Table 9. Types of Institutions Vs Electronic Resources (Consortium)

S.No	Electronic Resources (Consortium)	Type of Institution			Total
		Govt.	Minority	Private	
1	Yes	4 (4.94)	2 (2.47)	39 (48.15)	45 (55.56)
2	No	2 (2.47)	1 (1.23)	33 (40.74)	36 (44.44)

(Figures in Parentheses indicate percentage)

Table 10. Types of Institutions Vs Subscribed Electronic Resources (Consortium)

S.No	Subscribed Electronic Resources (Consortium)	Type of Institution			Total
		Govt.	Minority	Private	
1	INDEST – AICTE	6 (7.41)	2 (2.47)	38 (46.91)	46 (56.79)
2	UGC INFONET	1 (1.23)	0	1 (1.23)	2 (2.47)
3	J - GATE (JCCC)	3 (3.70)	0	13 (16.05)	16 (19.75)

(Figures in Parentheses indicate percentage)

Types of Institutions Vs Digital Library Project Financed

The following table 11 presents data about digital library project. In most of the Engineering Colleges, management (72.84%) finances, digital library project while 20.94% financed by a free library / system and 4.94% of government funding.

Table 11. Types of Institutions Vs Digital Library Project Financed

S.No	Digital Library Project Financed	Type of Institution			Total
		Govt	Minority	Private	
1	Free Library System	1 (1.23)	2 (2.47)	14 (17.28)	17 (20.99)
2	Donor Funding	0	0	1 (1.23)	1 (1.23)
3	Government Funding	3 (3.70)	0	1 (1.23)	4 (4.94)
4	Management	2 (2.47)	1 (1.23)	56 (69.14)	59 (72.84)

(Figures in Parentheses indicate percentage)

Establishment of Digital Library Section

Personnel are most important digital library's resource, not only during its initial creation and set up, but also for its operation, maintenance and provision of services. Since the access to the digital library is easy, compared to a physical library, more users (Alhaji, 2009) are likely to access it. If the digital library does not meet the expectations of the users in terms of currency and quality of content, they will lose confidence, and it is likely for them not to visit the digital library again. As a part of analysing the digital library initiatives in the libraries surveyed, the respondents were asked to state whether they have established a separate section for digital library and their responses were furnished with table 12. A total of 37.04% has answered positively to have a separate digital library section while 62.96% have said no, for the question asked.

Table 12. Types of Institutions Vs Digital Library Section

S.No	Digital Library Section	Type of Institution			Total
		Govt.	Minority	Private	
1	Yes	3 (3.70)	1 (1.23)	26 (32.10)	30 (37.04)
2	No	3 (3.70)	2 (2.47)	46 (56.79)	51 (62.96)
	Total	6 (7.41)	3 (3.70)	72 (88.89)	81 (100.00)

(Figures in Parentheses indicate percentage)

Type of Digital Library Software Used

The Digital library software works with the web server in providing various digital libraries Functionalities (O'Mahony, 2003) including creation, organization, maintenance, indexing, search and retrieval. In choosing the software, some features should be taken into consideration. These include: Support for different document types, Support for customized metadata, Collection administration, Support for standards like Dublin core metadata standard, Search and retrieval and Multilingual support. Several free digital library software packages are now available which could facilitate the easy creation and sharing of information through digital library collections. It is observed from Table 13 that the majority of institutions (66.67%) are provided with open source software and 20.99% is used own preparation, and only 12.35% utilize commercial software.

Table 13. Types of Institutions Vs Digital Library Software

S.No	Digital Library Software	Type of Institution			Total
		Govt.	Minority	Private	
1	Open Source	5 (6.17)	3 (3.70)	46 (56.79)	54 (66.67)
2	Commercial	0	0	10 (12.35)	10 (12.35)
3	Ownership Preparation	1 (1.23)	0	16 (19.75)	17 (20.99)
	Total	6 (7.41)	3 (3.70)	72 (88.89)	81 (100.00)

(Figures in Parentheses indicate percentage)

Table 14 gives information about various digital library software used in different types of institution. 24.69% institution uses DSpace while 18.52% use E-print and 11.11% use Greenstone (GSDL) software.

Table 14. Types of Institutions Vs Digital Library Software Used

S.No	Used Digital Library Software	Type of Institution			Total
		Govt.	Minority	Private	
1	Greenstone	1 (1.23)	1 (1.23)	7 (8.64)	9 (11.11)
2	DSpace	4 (4.94)	1 (1.23)	15 (18.52)	20 (24.69)
3	E-Print	0	0	15 (18.52)	15 (18.52)

(Figures in Parentheses indicate percentage)

Electronic resources might consist mostly of documents in word processing formats or may include an array of e-mail, databases, spreadsheets, presentations, and other types of files, some of which can only be read using proprietary software. Different methods can be adopted for digitizing the resources of a library At least five methods are followed as shown in table 15. It was found that a majority of (71.60%) of the libraries is concentrating on 'converting of students' project reports and thesis into digital form. This is followed by 'converting selected documents'. It should be noted that hardly a few librarians have attempted to cover all the documents in their respective libraries.

Types of Institutions Vs Preferred Digital Library Collection

Table 15. Types of Institutions Vs Preferring Digital Library Collection

S.No	Digital Library Collection Preferred	Type of Institution			Total
		Govt.	Minority	Private	
1	All Documents	0	0	3 (3.70)	3 (3.70)
2	Selected Documents	4 (4.94)	3 (3.70)	34 (41.98)	41 (50.62)
3	Rare Collection	2 (2.47)	0	11 (13.58)	13 (16.05)
4	Own Publications	1 (1.23)	0	5 (6.17)	6 (7.41)
5	Project Reports and Thesis	6 (7.41)	3 (3.70)	49 (60.49)	58 (71.60)

(Figures in Parentheses indicate percentage)

Cluster Analysis for Preferred Digital Library Collection

In order to analyse the variables associated with the digitization, cluster analysis has been followed to group the variables. The variables and variable codes are presented in the table 16.

Table 16. Modes for Preferred Digital Library Collection (Variables and Variable Codes)

S.No	Variable Code	Variable Name
1	DLCP A	All Documents
2	DLCP B	Selected Documents
3	DLCP C	Rare Collection
4	DLCP D	Own Publications
5	DLCP E	Project Reports and Thesis

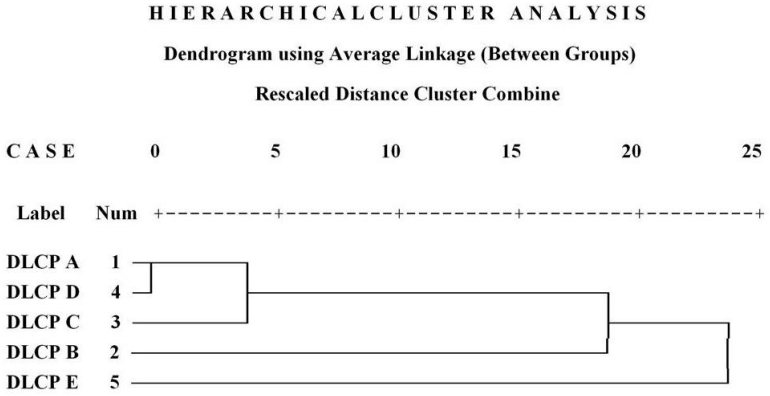

Fig. 4. Dendrogram for preferred digital library collection

The resulting dendrogram is shown as Figure 4. It is seen from the dendrogram that at the 25% level, two interpretable clusters have been formed in cluster 1; four variables are grouped as shown in Table 17. The agree, disagree ratio is 2.57:1, which means that those methods for digitisation are not used by the majority of the respondents and hence this cluster has been named as 'best practiced'.

Table 17. Cluster 1: Best Practice of Preferred Digital Library Collection

S.No	Variable Code	Variable Name	Agree	Disagree
1	DLCP E	Project Reports and Thesis	58	23
	Total		58	23

N = 81

Agree: 58 **Disagree: 23**
Agree ratio: 58/81 = 0.72 **Disagree ratio: 23/81 = 0.28**
Agree and Disagree Ratio (0.72:0.28) = 2.57: 1

In cluster 2, only one variable has been grouped as shown in table 18, the agree and disagree ratio is 0.24:1, which can be interpreted as the 'least practiced methodology for digitization.

Table 18. Cluster2: Least Practice of Preferred Digital Library Collection

S.No	Variable Code	Variable Name	Agree	Disagree
1	DLCP A	All Documents	3	78
2	DLCP D	Own Publications	6	75
3	DLCP C	Rare Collection	13	68
4	DLCP B	Selected Documents	41	40
	Total		63	261

N = 81

Agree: 63 **Disagree: 261**
Agree ratio: 63/81 = 0.78 **Disagree ratio: 261/81 = 3.22**
Agree and Disagree Ratio (0.78:3.22) = 0.24:1

Methods used for Converting Text Form to Digital Form

It is observed from the table 19 that majority of institution (74.07%) uses scanning for converting printed material to digital form, while 58.02% use conversion software.

Table 19. Types of Institutions Vs Converting Text Form to Digital Form Conversion

S.No	Methods used for Converting Text form to Digital form	Type of Institution			Total
		Govt.	Minority	Private	
1	Scanning	5 (6.17)	3 (3.70)	52 (64.20)	60 (74.07)
2	Digital Camera	2 (2.47)	2 (2.47)	10 (12.35)	14 (17.28)
3	Convenerion Software	6 (7.41)	3 (3.70)	38 (46.91)	47 (58.02)

(Figures in Parentheses indicate percentage)

The important task in creating a digital library collection is the conversion of the source materials available in hard copy into a digital format. Regarding digital conversion facilities, 64.20% institution is facilitated with audio / video conversion utilities, and 39.51% provided facilities for converting text matter data presented in table 20.

Table 20. Types of Institutions Vs Digital Conversion Facilities

S.No	Digital Conversion Facilities	Type of Institution			Total
		Govt.	Minority	Private	
1	Convert Text Matter	4 (4.94)	2 (2.47)	26 (32.10)	32 (39.51)
2	Convert Picture	3 (3.70)	0	17 (20.99)	20 (24.69)
3	Convert Audio / Video	4 (4.94)	1 (1.23)	47 (58.02)	52 (64.20)

(Figures in Parentheses indicate percentage)

Knowledge about Metadata Standards

Through the appropriate metadata and information exchange protocols, the digital libraries can easily share information with other similar digital libraries and provide enhanced access to users. With regard to knowledge about various metadata standards, 37.04% of librarians are aware of metadata standards, while 62.96% are unaware of metadata standards. The data are represented in table 21.

Table 21. Types of Institutions Vs Knowledge of Metadata Standards

S.No	Knowledge of Metadata Standards	Type of Institution			Total
		Govt.	Minority	Private	
1	Yes	3 (3.70)	1 (1.23)	26 (32.10)	30 (37.04)
2	No	3 (3.70)	2 (2.47)	46 (56.79)	51 (62.96)
	Total	6 (7.41)	3 (3.70)	72 (88.89)	81 (100.00)

Findings of the Study

- ➢ It is found that 34.57% of libraries are in the process of building digital collections, which is an encouraging trend among Engineering Educational Institutions in Rayalaseema Region.
- ➢ It is motivating to note that 72.84% respondents state that digital materials are preferred for LAN, which 58.02% opine digital materials 'occupy less space', 'accessible anywhere and anytime' and they feel the digital material are 'easy to access the latest version of documents, while 45.68% are satisfied using a digital form of documents'
- ➢ It was found that 50.62% use materials that exist in digital form, and only 3.70% create their own digital resources.
- ➢ The majority of librarians (93.83%) 'harvest digital materials from web' while 18.52% from 'outright purchase' and get 'licensed from vendor' respectively and 9.88% prepare their own digital materials.
- ➢ Focusing on various modes of acquiring digital materials, acquiring digital material from the web is the most practical method for acquiring digital material.
- ➢ The majority of the institutions (55.56%) is provided with electronic resources while 44.44% institutions are not provided with e-resources.
- ➢ Most of the institutions (56.79%) are provided with INDEST-AICTE Consortium, while 19.75% institutions with J-GATE and 2.47% with UGC-Infonet.
- ➢ In a good number of the Engineering Colleges, management (72.84%) finances, digital library project while 20.94% financed by a free library / system and 4.94% of government funding.
- ➢ A total of 37.04% has answered positively to have a separate digital library section.
- ➢ 24.69% institution uses DSpace while 18.52% use E-print and 11.11% use Greenstone (GSDL) software.
- ➢ Majority of institution (74.07%) uses scanning for converting printed material to digital form, while 58.02% use conversion software.
- ➢ 64.20% institution is facilitated with audio / video conversion utilities, and 39.51% provided facilities for converting text matter data.
- ➢ 37.04% of librarians are aware and 62.96% are unaware of metadata standards.

Conclusion

Developments in information and communication technologies (ICTs) have presented opportunities for the rapid production of data, digital content, digital collections, institutional and subject repositories, digital libraries (Managing Digital Collections, 2009) and archives. Digital libraries offer a relatively mature set of tools, engineering approaches, and technologies that are now ready to be harnessed in the service of many organizations and many purposes. The brief discussions of selected digital libraries show that different types of digital libraries have been developed over the past few years. An initiative of digital library in Rayalaseema Region is in the preliminary stage of development. However, attempts on evaluating either the status or initiatives on a digital library of education institution have been noticed in some of the engineering educational institutions of Rayalaseema Region. Many organisations need to go ahead with new digital projects despite financial constraints and diminishing institutional budgets.

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