

## **Perception Of Karnataka Engineering College Librarians Towards Digital Library**

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### **Abstract**

The study perception of Karnataka engineering college librarians towards digital library is aimed to report the opinion provided by the respondents of engineering colleges that are affiliated to the Visvesvaraya Technological University (VTU), which controls the technical colleges in the entire Karnataka state. The study also aims to find the satisfaction level of digital infrastructure. The study even highlights the opinion of librarians in providing e-resources/online database/s subscriptions as per the All India Council for Technical Education (AICTE) norms. Adopting the interview and questionnaire tools the study presents the survey results obtained from 150 VTU-affiliated engineering college libraries. The findings of the study clearly demonstrate the favorable opinion of librarians on digital libraries to meet the varying needs of the user community. However, negative opinions were also reported by some librarians who observed that digital libraries diminishes the utility of physical libraries and the use of print resources.

### **Introduction**

In the evolving landscape of information communication technology, libraries are undergoing a significant transformation. All libraries regardless, of size and nature are shifting towards digital libraries from traditional libraries. The transition to digital libraries is driven by several factors, including the increasing availability of digital resources, the growing demand for remote access to information, the need for efficient information retrieval systems. This transaction is not merely a change in the medium of information storage and dissemination but also a paradigm shift in how information is accessed, processed and utilized. The role of librarians is pivotal in this transaction, along with users' attitudes towards digital resources and services.

Digital libraries, which store collections in digital formats and are accessible via computer, have emerged as an essential element of modern information management. However, shift from traditional physical libraries to digital libraries presents unique opportunities and challenges. Digital libraries provide wide access to resources such as, databases, e-journals, e-books, and videos and these resources are convenient to procure, store and disseminate. It further supports in expanding services, sharing resources and also contribute to environmental sustainability efforts. Digital

libraries also present several challenges that need to be addressed to maximize their potential. The challenges such as technical infrastructure, high subscription cost, digital literacy, licensing and copyright etc., need to be addressed (Sonker & Mahawar, 2017). Along with it, vast amount of information available in digital media poses greater challenge to ensure relevance and quality of information. These challenges need to be addressed carefully through strategic planning of resources including, finance and human resources. The role of librarians are evolving to manage the transition and meet current users needs. This new role of librarians involves a blend of traditional librarianship skills with proficiency in information technology. In this regard the perception of librarians plays an important role as, many librarians embrace the potential of digital libraries to enhance access to information to support teaching and learning, others are concerned of the challenges associated with it. Thus, to delve deeper into understanding the perception of librarians, especially in engineering colleges of Karnataka the study is undertaken to report the current status of librarians in transforming libraries towards digital libraries.

### **Objectives of the study**

- To assess the attitude and opinion of engineering college librarians' digital transformation
- To evaluate the impact of digital libraries on engineering college librarians'

### **Hypothesis**

H<sub>1</sub>: Librarians have a favorable opinion on whole concept of digital library

### **Review of Literature**

Librarians have a different view of digital libraries. They consider that the role of librarians is undergoing a significant transformation due to the increasing popularity of ICT. They are shifting the acquisition, processing and dissemination practices to digital modes. Librarians are now subscribing to digital resources and offering digital services and acting as a mediator between resources and users remotely (Myburgh & Tamaro, 2013). Further, librarians are of the opinion that they need to develop skills and competencies in managing digital libraries (Sreenivasulu, 2000) as they are the future of academic and research institutions. However, few librarians consider that there is a need for hybrid library rather than focusing on digital library as the traditional practices symbolize cultural values (Levy, 2005) (Choi & Rasmussen, 2006). Additionally, librarians also need to have depth of knowledge and skills across the dimensions and should place greater emphasis on management, including project management skills through practical experience of a digital project (Choi & Rasmussen, 2006)

### **Methodology**

The study adopted quantitative and qualitative research method. The data was collected from the engineering college libraries from Karnataka, using a survey method. The questionnaire and interview tool were employed to collect data. The study considered

engineering colleges affiliated with Visvesvaraya Technological University (VTU), Belagavi, Karnataka that were approved by All India Council for Technical Education (AICTE) India. The Sample comprised of 191 engineering colleges out of 204, excluding 13 colleges that were established after the year 2012. From the 191 samples, the authors received 150 responses, which is 78.53% of the total sample population response and determined that collected data can be summarized for the whole population. The data collected was analyzed, using descriptive analysis through Statistical Package for the Social Sciences (SPSS) v26.

## Data Analysis and Discussion

### Additional IT Qualification

Libraries, in general, have started using technology to provide easy access to all the resources and services of the library. Having an additional IT qualification would enable the librarians to improve and modernize the conventional services and provide new services. So the data on the additional qualification was collected and shown in Table 1. From the study, it is clear that 44% of the respondents had undertaken at least one additional course such as PGDLAN, PGDNET and training in computer science, whereas the remaining 56% had no additional IT qualification. It indicates that nearly 50% of librarians have shown interest in formal IT training, which is essential in running a library these days. It also observed that the requirement of specialization that are essential in managing libraries is increasing and extended beyond those competencies and skills that can be or are being covered in library schools.

**Table 1: Additional IT Qualification of the Respondents**

Additional Course	No. of Responses	Percentage
Yes	66	44.00
No	84	56.00

The higher number of the librarians did not possess any additional formal IT qualification. This could be attributed to the on-the-job training the librarians would have acquired over the years along with other trainings that are provided by the colleges or university, or library associations. Alternatively, in Indian engineering colleges, use of technology is gaining potential recently so this could be a recent requirement for librarian.

Most of the responsibilities of the librarians require the use of computer and the internet in the digital library it is important for librarians to acquire IT knowledge to update themselves of the latest developments in the field of library science, consequently, add value to the library users. Further, librarians are expected to improve and modernize the conventional services and provide new service, which require IT skills. In this direction PGDLAN, PGDNET and training in IT could help them to extend their duties efficiently. This study confirms that librarians have realized the need for additional IT

training hence 44% have undertaken PGDLAN, PGDNET courses and training in IT, which could be considered as progressive towards meeting library standards, although VTU & AICTE do not have any mandatory requirement to possess IT training for librarian.

### Satisfactory Level of Respondentson Internet Speed & Digital Infrastructure

Satisfaction is very important for any work/activity and personnel satisfaction provides a positive approach to meet challenges, on the other hand person's dissatisfaction with the activity/work might result in failure, which may further lead to several problems. So, librarians were asked to rate their satisfaction levels with regard to speed of internet access and digital library infrastructure provided. With regards to satisfaction of internet speed, 16.67% of the librarians specified that they were highly satisfied with the speed of the internet facility at their library, 36% were satisfied, 33.33% were specified somewhat satisfied, 11.33% were neutral in their opinion, and the remaining 2.67% were unsatisfied with the speed of the internet facility at their library.

In the case of satisfaction with digital infrastructure, 12.66% of the librarians were highly satisfied, 30.67% of the librarians were satisfied with the digital library infrastructure facility at their library, 38.00% were somewhat satisfied, 14.00% were neutral in their opinion, and the remaining 4.67% were unsatisfied with the digital library infrastructure in their library.

Internet facilities is a standard provision in the libraries, with the exception of one library which did not provide the internet services. Previous studies by librarians' shows that majority of the users prefer to use internet at college and library, so provision of internet facility is important (Dhanavandan, Esmail & Nagarajan 2012; Mulla & Chandrashekara 2006a and Kumar & Kaur, 2005).

**Table 2: Satisfactory Level of Internet Speed & Digital Infrastructure**

Services	Highly Satisfied		Satisfied		Somewhat Satisfied		Neutral		Unsatisfi ed	
	F	%	F	%	F	%	F	%	F	%
Internet Speed	25	16.67	54	36.00	50	33.33	17	11.33	4	2.67
Digital Infrastructure	19	12.66	46	30.67	57	38.00	21	14.00	7	4.67

### Opinion on Subscription to E-resources

The AICTE has made it mandatory to subscribe to the list of e-resources that are depicted in Table 3 and costs nearly INR 22,00,000/- per year. It is essential to know the opinion of librarians with regard to the subscription to e-resources as per AICTE,

as huge expenditure is incurred towards this. It was found that 20.67% of the respondents reported that subscribing to e-resources as per AICTE norms is “very essential to users”, 36.67% reported that subscribing to e-resources as per AICTE norms is “essential to users”, 26.00% reported that subscribing to e-resources as per AICTE norms is “somewhat required for users”, 5.33% reported that subscribing to e-resources as per AICTE norms is “not at all required for users” and the remaining 11.33% librarians reported that subscribing to e-resources as per AICTE norms is “required to satisfy the AICTE committee members”. This indicates that a significantly high number of librarians are of the opinion that subscribing to e-resources is essential for users and also somewhat required for users. In spite of AICTE and VTU mandate, few librarians are not subscribing to the e-resources, which demonstrates that the adoption of e-resources is still being evaluated by librarians for their value in the academic process.

**Table 3: Opinion on Subscription to E-resources as Per AICTE**

Experience		Opinion					Total
		Very Essential for Users	Essential for Users	Some What Required for Users	Not at all Required for Users	Required to satisfy AICTE Committee	
<10	F	15	32	15	02	10	74
	%	20.27	43.24	20.27	2.70	13.52	100.00
11-20	F	10	14	20	04	04	52
	%	19.24	26.92	38.46	7.69	7.69	100.00
21-30	F	03	08	02	01	03	17
	%	17.65	47.06	11.76	5.88	17.65	100.00
31-40	F	03	01	02	01	00	07
	%	42.85	14.29	28.57	14.29	0.00	100.00
Total	F	31	55	39	08	17	150
	%	20.67	36.67	26.00	5.33	11.33	100.00

### Opinion of Librarians on Digital Library

The opinion with regard to the use of digital libraries was collected and grouped into six broad categories: beneficial to users, awareness required, saves space, saves time, cost-

effective, and easy access. In addition, there were also other positive comments. However, a few negative comments were also received.

Fifteen librarians said that digital libraries were useful to the users, especially for engineering colleges. They proclaimed that as it can be reached to any place at any time, saves the time of students, who are mostly tech-savvy. Apart from that, even the librarians can be benefitted out of it as disseminating the service is cost-effective and convenient. Some felt it can be used for the overall development of the students and their careers.

Some quoted that awareness about the digital library is important, if digital libraries have to be fully utilized. Further, ten librarians quoted that awareness about digital services is a key factor in making the users avail the services. One librarian opined that adequate infrastructure should be provided along with creating awareness for promoting digital libraries.

Three librarians believed that by designing digital services and digital libraries, library space can be saved.

Being dependent on technology, according to five librarians digital libraries can save time and ably support fourth law of library science 'save the time of the user'.

One respondent felt that as digital library is a "Cost effective service which increases utility."

About its easy access, six librarians commented that digital service provides easy access as it can be reached anywhere anytime. On the other hand, one of the respondents said that "Faster and accurate access to resources can be provided but usage of library will come down."

Some of the other positive comments about the digital services were recorded as follows:

- "Essential to overcome the problems of the conventional library system."
- "User friendly and service friendly."
- "Provide an opportunity to expand service."
- "Enhanced digital resources attract users towards library."

Negative opinions were voiced by some of the librarians about digital services. One of the respondents felt that the role of digital libraries and services is diminishing the utilities and usage of the library. While another respondent has opined that there is no demand for information because of digital services. There was also an impression that the tendency to accept the service was less among the users. Two respondents have rightly pointed out the need for the development of infrastructure for the appropriate use of digital libraries and to maximize service quality. The need for support from

teaching faculty to encourage the digital library was felt. Similarly, the financial support from the Government to provide good resources was also felt by a few respondents. On the whole, there was acceptance of digital information services by librarians. The need for better infrastructure and an increase in user/management support were reported.

**H<sub>1</sub>: Librarians have a favorable opinion on the whole concept of digital library**

With the influence of technology, the scope of library systems has changed drastically and the librarian's influence and status has also increased. Thus, librarians are able to manage libraries with great potential. Technology has provided a platform for librarians to showcase their talent. There is reduced time and economy while providing such services. Hence, it is hypothesized that librarians will have a favorable opinion on digital library concept (H<sub>1</sub>).

Responses revealed that 52.67% of the librarians strongly agreed that the digital library is a tool in the hands of librarians to take library services to a higher level, 46.33% of the librarians merely agreed, 2.67% neither agreed nor disagreed, and the remaining 1.33% strongly disagreed that the digital library is a tool in the hands of librarian to take library services to a higher level. It is clear from the results that the majority of the librarians feel digital library is an important tool through which they can serve the user community with rich information services as revealed by significant chi-square value ( $\chi^2=129.627$ ;  $p=000$ ) (Table 4). H<sub>1</sub> stated as "librarians will have a favorable opinion on the whole concept of digital library" is therefore accepted.

From the hypothesis, it is clear that the librarians strongly agreed that the digital library is a tool in the hands of librarian to take library services to a higher level. It is clear from the results that the majority of the librarians feel digital library is an important tool through which they can serve the user community with rich information services. The test results revealed that hypothesis is accepted.

**Table 4: Opinion on Digital Library as a Tool**

Opinion	No. of Responses	Percentage
Strongly Agree	79	52.67
Agree	65	43.33
Neutral	04	02.67
Strongly Disagree	02	01.33
Total	150	100.00
Test statistics: Chi-square=129.627; p=.000		

**Conclusion**

The concept of digital libraries has been evolved since 15-17 years. In this short time, it has created a huge impact on the way information is collected, stored, managed and

retrieved. There are enumerable studies conducted in the area of 'digital libraries'. No study has concluded negatively about the concept of digital libraries. It has evolved and took high speed with the advent of the latest technologies. Digital libraries have been providing required materials to the user community and enabling the library and librarian community to find many answers that were unanswered a few years ago and made ways to provide a wide range of services. The study showed that librarians, in general, expressed favorable opinions with regard to digital libraries and mentioned that, they are beneficial to users, cost-effective and are easy to access. Some negative opinions were also found, for instance, some librarians believe that digital libraries diminish the utility and use of the physical library and the library staff would go out of their jobs. Thus, it is suggested that library associations such as KALA, AKELPA, SALIS, IASLIC, ILA, etc to organize awareness programs, workshops, seminars, conferences, etc. related to current developments in digital technologies regularly to prepare librarians to harness the advantages of technology. It is also recommended the management to approve the culture of the manpower development programme which influences librarians in the engineering college libraries to adopt the technology wholeheartedly.

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