

COLLECTION DEVELOPMENT IN ENGINEERING COLLEGE LIBRARIES AFFILIATED TO JNTUK KAKINADA: A STUDY

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Abstract

This article takes a view on the collecting behaviors in a network environment. The authors look at the changing dynamics of print collections, at the greater engagement with research and learning behaviors, and at trends in scholarly communication. The data collected from the 25 colleges established during 1946 - 2000 which are now under junk. The authors argue that the network is reconfiguring not only individual academic libraries but also the whole library system, as reduced transaction costs facilitate the unbundling of functions and their consolidation in network platforms and with other external service providers. This period began with the introduction of electronic journal databases to replace print journal holdings and the replacement of print indexes with digital as the primary search mechanism for finding scholarly articles. Given that the necessary conditions have not yet been met discussion of de-accession of local print collections must proceed, for the time being, along other lines and with other criteria.

Key words: collection development, Engineering college libraries, E-Journals, Print Journals, Engineering Branches.

INTRODUCTION

Collection development and management is a vital process in building a library collection, be it as an academic or special or public library. It is said that development of collection of titles is one of the most important and responsible activity in the library. In fact, the utilization of library depends upon the quality of its collection. In the traditional libraries, users have to spend more time for searching a small piece of information and for that they have to depend mainly on the library staff. But in the age of information and

communication technology, computers are being used for day to day house-keeping activity of the library, which saves the time of the end users, and library professionals also and at the same time avoids duplication of work and makes the library service smooth and effective. Electronic technologies and collection development are two of the top concerns in library and information science today. Advancements in information and communication technology (ICT) have incredibly improved and changed almost in all walks of life. ICT has impacted on every sphere of academic library activity especially in the form of the library collection development strategies. ICT is being increasingly used in library and information services for the acquisition, storing, processing and dissemination of information.

Libraries of engineering colleges are switching over to ICT based resources and sources at an accelerated pace. E-journals, CD-ROM data bases, online databases, e-books, and web based resources and varieties of other electronic resources are fast replacing the traditional resources of libraries of technical institutes. The demand for e-books has increased remarkably among library users. Further, most of the libraries are running with storing space problems. Hence, to cater with the changing trends and demand of users, to overcome space problems in libraries, to avoid procurement of multiple copies of books, etc., libraries, most libraries particular academic libraries of higher learning institutions have started. There have been several ways of system-wide library reorganization, as activities previously part of library infrastructure are now unbundled and sourced in consolidated platforms. Notably, these successively include the development of shared cataloging and resource-sharing networks, the move to a licensing model for the journal literature, and more recently for books, and the trend to cloud-sourced discovery and library management environments. Of course, the business arrangements in each of these cases is different, but they share the drive of reducing institutional system-wide transaction costs by unbundling institutional functions and consolidating them in shared network platforms. At the same time, negotiation and licensing moved partly into shared or consortia settings. Libraries will increasingly collaborate around systems infrastructure and collections Or libraries will unbundle these activities and externalize them to third parties where it makes sense. The reduced transaction costs of collaboration and externalization make this consolidation inevitable. A few years ago, libraries would likely build individual infrastructure to manage digitized books and store them locally. Now shared model is more compelling because the network has reduced the transaction costs of creating and interacting with a consolidated resource. Of course, this makes the governance of the organizations to which these responsibilities are entrusted a critical community issue, another area requiring conscious coordination among stakeholders.

Print continues to be central, but several drivers are altering priorities. These include demands on space, the emergence of a digital corpus through Google Books and HathiTrust, and the cost of managing a resource that releases progressively less value in research and learning. We believe that we are moving to a situation where network level management of the collective print collection becomes the norm, but it will take some years for service, policy, and infrastructure frameworks to be worked out, and evolution will be uneven. At the moment, this trend is manifesting itself in a variety of local or group shared print projects, as well as in several regional and national initiatives. The recognition that system-wide coordination of print materials is necessary as libraries begin to retire collections—to offsite storage or removing them altogether—is gathering.

REVIEW OF LITERATURE

Arikrishnan (2010) in his study on e-Resources for Engineering and Technology: An Overview explained Engineering and Technology libraries are facing challenges due to continuous increasing in the payment to learned periodicals and database folder which influence the research and educational movement. Parashar et.al (2011), the whole Array of flexibility in the academic structure which can meet the requirements of all type of students a University gets and expectations of all stake holders. Vikas (Om), (2011) focus on Impact of Quality up gradation in engineering education network will be on raising quality of skills, evolving skills standards and facilitating mobility to higher studies in engineering disciplines and will take higher level experts and researches to interact with teachers of these institutions on issues of teaching methodologies, evaluation methods, systems thinking, collaborative learning, integrating skills and exploring into future technologies. Bhatt et.al. (2011) Engineering education is not only learning and teaching in fundamental science but also relies on training some personal and technical skills with changing the student's way of opinion in a more consistent way to reach creativity at the end. In other words victorious engineering movement demands wide range of skillfulness and with data knowledge because the amount of standard material connecting to engineering is now so large. Rupsing (2007) describes the concept of functions and collection development in the Engineering College Libraries. It is also reviews the brief introduction of AICTE policy on resource sharing. Alha, (2010), focus on librarians are face lots of challenges imposed by different electronic data information services such as CD-ROM databases, online databases and web supply in these areas. Bhalekar,(2011) defines automation and elaborates the importance of automation of an academic library. Hambarde (2011) highlights present situation of ICT awareness amongst engineering college Librarians, software used by the various libraries and e-journals uses. Das et.al, (2011) Digital libraries are way of making educational and research data and information available to all users that is faculty, researchers, students and others at the institutions and worldwide. Pragasam opinioned that almost all the college libraries are using the ICT and its application and bring the benefit of them in to the libraries. Singh et.al, (2011) mostly libraries will be utilizing the web page to provide services to an increasingly. Handa et.al (2010), It reveals the management and service aspects of libraries with respect to available source. The study depicts that not all the colleges meet collection development polices and there is a scarcity of adequate professional staff. It also reveals that being technical institutions, not all the engineering colleges are implementing IT infrastructure in their libraries. Shah (2012) In the age of information in explosion library has to play vital role to provide the required information to the end user with the use of Resource Sharing to fulfill such requirement libraries should have networking. Kacherki et.al (2011) Human resources in any organization are most expensive. The organization does prosper and achieve its goals. With the help of main resources in Information communication technology (ICT) and its greater role in information storage and retrieval have brought pressure on librarians to update their knowledge and skills in these areas and seek change from the traditional library technique to modern automated system along with the training and enhancement of knowledge.

RESEARCH GAP

Review of literature on the subject matter of collection development and management, it is clearly inferred that despite the vast literature available in the sphere of collection development and management, there is still dearth of relevant and appropriate literature pertaining to the policy of collection development and management. The present study very specifically deals with the behavior of collection development and management in changing from print to online from engineering colleges point of view.

METHODOLOGY

This study is a survey of college libraries in costal Andhra Pradesh, India. The data collected from the 25 colleges established during 1946 - 2000 which are now under jntuk. The survey method conducted with help of structured questionnaire and distributed to the concern college librarians and management. The survey sought to determine the nature of the collection, procedures and policies followed to develop collections, nature and composition of e-resources in them, their selection, access, evaluation and withdrawal procedures and the type of collaborative activities they are involved.

OBJECTIVES

1. To examine district wise engineering colleges under JNTUK the selected period.
2. To understand the types of resources for library collection in respondent colleges.
3. To reveal the present status of print, non-print and e-resources in the libraries under study.

Survey results and discussions

Table 4.2.1 shows Engineering colleges by the year of establishment

| S.No | Year of Establishment | No of Institutions | Cumulative Number | Percentage |
|-------|-----------------------|--------------------|-------------------|------------|
| 1 | 1946 | 1 | 1 | 4 |
| 2 | 1977 | 1 | 2 | 4 |
| 3 | 1981 | 1 | 3 | 4 |
| 4 | 1996 | 1 | 4 | 4 |
| 5 | 1997 | 6 | 10 | 24 |
| 6 | 1998 | 11 | 21 | 44 |
| 7 | 1999 | 3 | 24 | 12 |
| 8 | 2000 | 1 | 25 | 4 |
| TOTAL | | 25 | 25 | 100 |

Source: primary data.

The engineering colleges considered for the present study are established in different years. The particulars of the number of engineering colleges and their respective

establishment are presented in the Table 4.2.2 one college each were established in the years 1946, 1977, 1981 and 1996 which is 4.00percent each. In 1997 6 engineering colleges (24.00percent) were established and 1998 recorded the highest establishment of 11 engineering colleges (44.00percent). In 1999, 3 engineering colleges (12.00percent) were established and the last college under consideration was established in the year 2000. The substantial increase in the number of engineering colleges in 2001 may be owing to liberalization of AICTE rules.

Table 4.2.2 shows District wise selected engineering colleges under JNTUK.

| S.No | Name of the District | Questionnaires Distributed | Questionnaires Received |
|--------------|----------------------|----------------------------|-------------------------|
| 1 | East Godavari | 4 | 4 |
| 2 | Guntur | 3 | 3 |
| 3 | Krishna | 7 | 7 |
| 4 | Prakasam | 4 | 4 |
| 5 | Srikakulam | 2 | 2 |
| 6 | Visakhapatnam | 3 | 3 |
| 7 | Vizianagaram | 1 | 1 |
| 8 | West Godavari | 1 | 1 |
| Total | | 25 | 25 |

Source: primary data

Sample of twenty five Engineering College Libraries which are affiliated to Jawaharlal Nehru Technological University were considered for the analysis purpose. The Table 4.1 shows distribution of questionnaires and responses received from the Librarians. A total of 25 questionnaires were distributed in all affiliated engineering colleges and 25 questionnaires were received with 100 per cent response rate.

Table 4.2.3 shows Types of branches in selected engineering colleges

| S. No | Name of the branch | Number of colleges (N=25) | Percentage percent |
|-------|--|---------------------------|--------------------|
| 1 | Civil Engineering | 24 | 96 |
| 2 | Computer science Engineering | 25 | 100 |
| 3 | Electrical and electronics Engineering | 25 | 100 |
| 4 | Electronics and Communications Engg | 25 | 100 |
| 5 | Mechanical Engineering | 25 | 100 |
| 6 | Information Technology | 9 | 36 |

Source: primary data

Generally engineering colleges offer various branches to their students. The Table 4.2.3 shows the various branches available in the respective responded engineering colleges. The colleges under study are offering mainly seven branches. They are Civil Engineering, Electrical and Electronics Engineering, Mechanical Engineering, Electronics and Communications Engineering, Computer Science Engineering, Information Technology and Chemical Engineering branches. From the above, it is learnt that ECE, CSE and IT are commonly offered in all Engineering colleges and Chemical Engineering is offered in 3 colleges.

Table 4.2.3 shows Academic year wise Number of members

| S. No | Academic year | Number of | | | |
|-------|---------------|-----------------|----------------|---------|--------|
| | | Under Graduates | Post Graduates | Faculty | Others |
| 1 | 2010-2011 | 5250 | 206 | 90 | 82 |
| 2 | 2011-2012 | 8109 | 329 | 112 | 148 |
| 3 | 2012-2013 | 16326 | 630 | 128 | 182 |
| 4 | 2013-2014 | 18419 | 912 | 210 | 132 |
| 5 | 2014-2015 | 23218 | 1238 | 388 | 209 |

Source: primary data

From the table 4.1.3 it is evident that students from under graduations and post-graduation and faculty includes teaching and non-teaching were regularly availing the library and it found that year wise it is increasing due to increase in intake.

Library collection development in an engineering college library mainly depends on the different types of resources used and available for the faculty. Here in this study there are two types of library resources used. Those are printed resources and databases.

Table 4.5.1 shows types of resources for library collection in respondent colleges.

| S. No | Printed Resources | Total | Percentage |
|-------|-------------------|---------------|------------|
| 1 | Books | 26 | 100 |
| 2 | Journals | International | 92.31 |
| | | National | 100 |

Source: primary data

Table 4.5.1 shows that all the engineering college libraries have national journals as the resources for library collection.

table 4.5.2 shows academic year wise Total number of books and journals.

| S.No | Academic year | Number of | | |
|-------|---------------|-----------|------------------|----------|
| | | Books | Journals (PRINT) | |
| | | | International | National |
| 1 | 2010-2011 | 42133 | 632 | 1281 |
| 2 | 2011-2012 | 50052 | 645 | 1301 |
| 3 | 2012-2013 | 53170 | 686 | 1385 |
| 4 | 2013-2014 | 59214 | 684 | 1401 |
| 5 | 2014-2015 | 70886 | 705 | 1416 |
| TOTAL | | 275455 | 3352 | 6784 |

Source: Primary Data

Table 4.5.2 shows that there is continuous increase in the books procured by the library for the academic years starting from 2010-11 to 2014-15. In the similar passion there is increase in the national & international journals procured by the library between the academic years 2010-11 to 2014-15.

Table 4.5.5 shows Details of non-print materials in library (e-sources)

| S. No | Type of non-print material | Number of colleges | Percentage |
|-------------------------------|----------------------------|--------------------|------------|
| E-sources | | | |
| 1 | Microfilm. Micro strips | 1 | 4.00 |
| 2 | CDs | 21 | 84.00 |
| 3 | DVDs | 20 | 80.00 |
| 4 | E-books | 22 | 88.00 |
| 5 | E-journals | 23 | 92.00 |
| Graphic materials | | | |
| 6 | Atlases, Globes | 0 | 0 |
| 7 | Charts | 0 | 0 |
| 8 | Photographs, diagrams | 0 | 0 |
| Audio visual materials | | | |
| 9 | Audio-cassettes | 0 | 0 |
| 10 | Slides | 0 | 0 |
| 11 | Video cassettes | 0 | 0 |
| 12 | Others | 0 | 0 |

Source: Primary Data

From the table 4.5.5 it is observed that More than 80 percent of the colleges are maintaining E-journals, E -books, DVDs and CDs and 4.00 percent of colleges are maintaining non-print materials in the form of Microfilm. Micro strips. It is also found that no college is maintaining non-print materials in the form of graphic material and audio visual materials.

Table 4.5.6 shows Details of access to non-print materials (e-sources) in library

| S. No | Name of e-source | Number of colleges | Percentage |
|-------|---------------------|--------------------|------------|
| 1 | ACS | 2 | 8.00 |
| 2 | ASCE | 10 | 40.00 |
| 3 | ASME | 14 | 56.00 |
| 4 | Engineering village | 0 | 0.00 |
| 5 | IEE | 0 | 0.00 |
| 6 | IEEE | 21 | 84.00 |
| 7 | IEL online | 3 | 12.00 |
| 8 | INDEST consortia | 1 | 4.00 |
| 9 | J-Gate | 4 | 16.00 |
| 10 | Pro Quest | 5 | 20.00 |
| 11 | ELSEVIER | 20 | 80.00 |
| 12 | UGC Info Net | 4 | 16.00 |
| 13 | Mc Graw Hill | 1 | 4.00 |

Source: Primary Data

Form the table 4.5.6 it is evident that more than 80 percent of the college library are maintaining e-resources like IEEE and ELSEVIER . These e-journals are related all the branches of the engineering also these journals maintain high standards. Whereas, remaining e-resources are maintaining less in number due to there are specific to the subject only.

FINDINGS OF THE STUDY

- College in the years 1946, 1977, 1981 and 1996 which is 4.00percent each. In 1997 6 engineering colleges (24.00percent) were established and 1998 recorded the highest establishment of 11 engineering colleges (44.00percent). In 1999, 3 engineering colleges (12.00percent) were established and the last college under consideration was established in the year 2000. The substantial increase in the number of engineering colleges in 2001 may be owing to liberalization of AICTE rules.
- 80 percent of the college library is maintaining e-resources like IEEE and ELSEVIER. 80 percent of the colleges are maintaining E-journals, E -books, DVDs and CDs and 4.00 percent of colleges are maintaining non-print materials in the form of Microfilm. Micro strips. It is also found that no college is mainintaing non-print materials in the form of graphic material and audio visual materials.
- There is continuous increase in the books procured by the library for the academic years starting from 2010-11 to 2014-15. In the similar passion there is increase in the national & international journals procured by the library between the academic years 2010-11 to 2014-15.

- students from under graduations and post-graduation and faculty includes teaching and non-teaching were regularly availing the library and it found that year wise it is increasing due to increase in intake.
- The colleges under study are offering mainly seven branches. They are Civil Engineering, Electrical and Electronics Engineering, Mechanical Engineering, Electronics and Communications Engineering, Computer Science Engineering, Information Technology and Chemical Engineering branches. From the above, it is learnt that ECE, CSE, EEE, MECH and IT are commonly offered in all Engineering colleges and Chemical Engineering is offered in 3 colleges.

RECOMMENDATIONS FOR THE STUDY

- International E-journals IEEE and ELSEVIER which are related to all the branches of the engineering and also these journals maintain high standards. It is strange to learn that no student and faculty are visiting the e-journals site. So, it is recommend college to subscribe international journals written by Indian authors.
- Many colleges are maintaining book bank to issue students this reflect Continuous increase in the books procured by the library for the academic years starting from 2010-11 to 2014-15. Hence, it is recommended that instead of book bank maintain volumes with various titles so there is a chance of studying various books related to their subject.
- It is strongly recommended that to implement collection development policy in engineering college libraries.
- Students from under graduations and post-graduation and faculty includes teaching and non-teaching given awareness on books availability. Most of the students are visiting library for newspaper reading.
- It is recommended to the college libraries recruit a system administration to avoid glitches in the usage of digital library.
- Continuous interaction of librarians with the academic community – both the heads of the departments and other faculty members would help not only in bringing coordination between academic community and the library staff but also helps in developing need based collection. This requires continuous and regular activities involving academic community such as library talk, book exhibitions and demonstrations of latest technology and so on.
- Continuous and constant monitoring of use of resources and weeding out of unwanted materials could help not only to keep the collection up-to-date but also facilitate easy access of available resources to users and overcome the space problem. It would also help in using the scarcely available manpower optimally.
- It is necessary that the librarians keep contact with publishers and book sellers, so also vice-versa. For this, regional level and local level meetings, seminars, symposia need to be organized often involving publishers, book vendors, distributors and as well as academic community. Exhibition of new books, new technology from different publishers, distributors, manufacturers during such seminars, conferences, symposia would give multiple benefits to librarians, academic community will know the latest available documents as well as technologies and they would recommend for purchasing these resources and technologies for libraries and this helps publishers and vendors to boost up their

market and it would also provide a common platform to exchange views relating mutual problems and to find solutions for such problems.

- There shall be a professional forum of the librarians of University librarians which could meet at least twice or thrice in year to discuss the mutual problems and to make the recommendations/ solutions for such problems to their respective university authorities. This would also help in accomplishing better resource sharing among university libraries.
- The Library committee shall consist of members of the active academic community who shall take keen interest and initiatives of build proper library collection and provide necessary facilities and services.
- The purchase of offline electronic resources should follow present collection development policies whether general or specific policies. Specifically their purchase should adhere to the chronological and date of publication guidelines set forth in general of subject specific policies. As with other materials subject specialists should also consider present curriculum and research needs. Select materials, which meet the standards, the library experts of all materials in regard excellence, comprehensiveness and authoritativeness and weigh the purchase of a particular title against other possible acquisitions from material budgets.
- The nature of access to information is changing rapidly and radically. The source of the change is well known – it is the emergence of the internet and the transformative character of the world wide web technology, which quite suddenly has change the ground rules for the production of and access to scholarly communication and electronic publishing has come of age. This new direction in collection development policy is indeed an opportunity to better serve the user community by developing a need based, relevant and variable cost effective collection sometimes without owing but providing access to information through networking. In India there is no support and cooperation of staff members and technical staff, which are very essential to provide effective service in a digital environment. As such the library staff should not only be technically competent but should also user-friendly-approach.
- The users of libraries are partially satisfied with the present library services. The users of library have required increase the library opening hours. The academic calendar gives a very little time for the students to make effective utilization of the library resources. This is the case as most of the colleges are located at remote place and the hostels are also far off from the colleges.
- The students are coming from the junior colleges where there are not having this facility and are not making use of the library so they students should be encouraged in the first year itself so that by the time they come into third year they make the effective utilization of the library resources.
- AICTE prescribe that a certain number of national and international journals are to be subscribed by the colleges. But in reality the subscribed journals are not been read by the students due to their hectic academic schedule.
- Some of the publishers are publishing the same book/ material indifferent titles reducing the standards of the books. The quality of the books should be retained to improve the standards of the books.

- Day by day the standards of the books are declining and the publishers are having a commercial approach and the students are also following the guides and All in Ones just to overcome the examinations rather than having a thorough knowledge of the subject. Thus motivation to students is very essential to use libraries. It may lead to collect more books.

CONCLUSION

From this discussion, it becomes clear that for libraries and information centers, It is a crucial consideration as it has an impact not only on the organizational structure, but also on the library purpose and service. Hence, libraries and librarian have little choice but to adapt and adopt it for library operations, especially for collection development activities and information services generation. Despite its enormous potential, information technology be it optical disc technology or computers and communications technology is largely underused by libraries and information centers. Therefore, it is necessary that information professional examine and design appropriate strategies in the selection and use of emerging technologies so as to increase productivity in library operations like collection development and management and also in enhancement of service to the users.

In the context of collection development and management, it should be remembered that the key issues to be considered would relate to ownership vs. access, cooperative efforts and evaluation. Ownership implies building up of collection and there need not be any doubt about this activity as printed material will always be a part library collections, but the shift towards networked and local electronic resources presents exciting possibilities for reengineering collection development and acquisition process, in other words libraries will need both ownership and access.

To conclude, the challenge we face is neither a paperless society nor the electronic information Centre. The challenge is to maintain, nurture and optimize the resources of the libraries with the help of new technology. Hence, we must be ready, emotionally, professionally and financially to accept and make good use of new technology.

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