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Automation and Digitization of Andhra University, Visakhapatnam College Libraries: A Study

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Abstract
In a digital era there is a tremendous growth of multimedia products and services, so there is need to manage them and disseminate in a wide variety of a formats. The purpose of this paper is to examine the present status of automation and digitization in Andhra University, Visakhapatnam Arts College, Science College, Law College and Engineering College libraries and the challenges they pose to effective information delivery. The library professional plays a vital role in management of digital library. The paper makes a more conscious effort on library automation and implementation of digitization policies.

Keywords: Automation, Digitization, Multimedia, Digital Resource, Art College, Science College, Law College and Engineering College.

1. Introduction

Traditional libraries are adopting automation of their function and services and also changing to digital libraries and new libraries that are being set up are increasingly automated and digital libraries. We refer to automated libraries housekeeping mechanical operations which is an important activity. Automation and digitization of libraries and consequently, a lot of research and development activities are being carried out in this area world over. Knowledge and information societies and Information and Communication Technology (ICT) knowledge has always been the prime prosperity.

2. Library Automation and Digitization

Library Automation and digitization is a first step for establishing a Digital Library. Automation is required for improving the efficiency of the services to be delivered at all levels. The direct access to this huge source of information can be made available all over the world only by digitization of Andhra University Libraries in India. Without automation of University Libraries, the digitization of University Libraries is not possible.

3. Conceptual Frame work

The conceptual frame work of development of automation and digitization in university libraries has been discussed under three parts: 1. Library Automation, 2. Digitization, 3. Digital Libraries.

4. Library Automation

Application of modem information technology in the library management functions is known as library automation. Library management functions include all types of housekeeping operations such as acquisition, cataloguing, circulation, serial control, budget management etc. Library automation includes use of computers and other semi automatic devices. To obtain digitized information from a number of online sources, the arrival of microcomputers changed the face of data processing and information management organizations. The opportunities presented by microcomputers coupled with the irrelatively low price, led some libraries especially university libraries to consider automating their library functions and activities.

5. Digitization

The Primary method of building digital resource is Digitization. Digitization is defined as, "Conversion of analog items into digital format for the purpose of extending access and where appropriate, to assist with preservation. It is linked to all aspects of services provided by the library." In simple words, digitization means acquiring, converting, storing and retaining information in standardized and organized manner with technology support. The digital content may be locally held or accessed remotely via computer networks.

6. Mission of University Libraries and Digitization

University library system exists to serve the information needs of its academic community and supports the teaching and research mission of the university. University libraries have following mission: 1. Acquiring, storing, processing and distributing the information; 2. To support the teaching and research program; 3. Serve the information needs of students; teachers and staff; 4. Conservation and preservation of knowledge; 5. Dissemination of publication of research results.

7. Areas of Automation in Libraries

Computers can be used practically in all library operations. Automation is going on to develop a knowledge based expert system for classification. The operations/activities that enable computerization can be divided into three parts: 1. Library house-keeping operations, 2. Information storage, retrieval and dissemination. 3. Management support activities.

8. Need of Library Automation

The factors necessitating automation of university libraries are: 1. Explosion of knowledge resulting in numerous specializations and flow of almost non-stop information, 2. Inability of users to explore unlimited literature; wastage of enormous precious time in handling routine and repetitive library operations and to facilitate easy, fast, and reliable sharing of resources between libraries, cutting across space and time.

9. Information and Library Network (INFLIBNET)

The UGC has set up an autonomous Inter-University Centre in 1991 called INFLIBNET. It is involved in modernizing university libraries in India and connects them through a nation- wide high-speed data network. It promotes automation of libraries, develops standards, creates union catalogues of serials, theses, books, monographs and non-book materials; provides access to bibliographic information sources; creates database of projects, institutions, specialists; provides training, etc. Almost all academic libraries, especially university libraries, are members of INFLIBNET. It has also developed library automation software called SOUL (Software for University Libraries) and has distributed the same free of cost to its member libraries.

10. Objectives of the Study

1. To evaluate the status, choices of the users towards various types of information resources and modes of information accessibility and potentialities of online journals in teaching and research on the basis of responses from user respondents
2. To study and elaborate the need for digitalization and automation in Libraries.
3. To analyze the impact of digitalization and automation in Universities libraries.

11. Research Methodology

Research in the field of Library and Information science is a methodical and systematic study of a subject with the aim to generate new information. The process of planning is a systematic study to seek probable answers to questions about libraries and information provider and retrieval systems. The sources a researcher taps will vary according to his interest, their accessibility and the type of study. To proceed with the study researcher has to design a research. Andhra University, Visakhapatnam libraries need to identify and adopt good practices and bench marks. An effort has been made to study the technologies used and the levels of automation achieved in various components of the libraries.

12. Analysis of Data Collection

Analysis of data collected from Andhra University, Visakhapatnam librarians as well as different types of users. The result shows in the survey of four college libraries analysis and interpretation of data collected through questionnaire method distributed four different Andhra University, Visakhapatnam college libraries i.e., 1. Arts College, 2. Science College, 3. Law College and 4. Engineering college in Andhra University, Visakhapatnam keeping in line with the objectives of the study and to get the answers presented in this chapter. Survey of users focuses on strength of users and faculty and library staff.

Table- 1: Frequency Distribution of Type of College Libraries Users

S. No	*Name of College*	*Total No*	*%*
1	Arts College	53	25.36
2	Science College	48	22.97
3	Law College	38	18.18
4	Engineering College	70	33.49
	Total	**209**	**100.00**

It shows that table-1 and figure-1 indicate that college wise frequency distribution of respondents shows the findings to the table data majority of engineering college (33.49%) and lowest responded in Law College (18.18%), and followed by Arts College (25.36%) and Science College (22.97%).

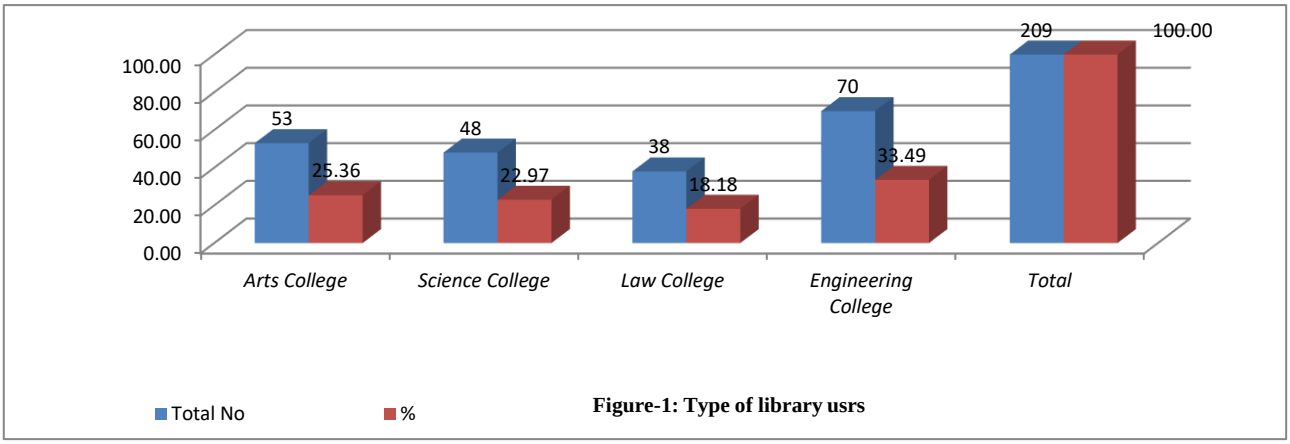

Figure-1: Type of library usrs

Table - 2: Type of College Libraries Users wise Distribution Respondents

S. No	Category	Type of Colleges				Total No (%)
		Arts	Science	Law	Engineering	
1	Faculty	08 (15.09)	07 (14.58)	03 (07.89)	05 (07.14)	23 (11.00)
2	Research Scholars	30 (05.66)	00 (00.00)	00 (00.00)	00 00.00	03 (01.44)
3	Post Graduates	42 (79.25)	41 (85.42)	12 (31.58)	00 (00.00)	95 (45.45)
4	Graduates	00 (00.00)	00 (00.00)	23 (60.53)	65 (92.86)	88 (42.11)
	Total	**53 (100.00)**	**48 (100.00)**	**38 (100.00)**	**70 (100.00)**	**209 (100.00)**

Category wise users respondents of the study is shown the above table that the highest rate of responses came from post graduates (nearly 45%) and followed by Graduates (42.11%) and Faculty (11%) respectively. College wise respondents are reveals that highest percent of the Arts users (79.25%) represent from Post Graduates, followed by faculty (15.08%) and Research Scholars (05.25%) respectively. Science College wise respondents are reveals that highest percent users (85.42%) represent from Post Graduates, followed by faculty (14.58%) respectively. Law College wise respondents are reveals that highest percent of users (60.53%) represent from Graduates, followed by Post Graduates (31.58%) and Faculty (7.89%) respectively. Engineering College wise respondents are reveals that highest percent of users (92.83%) represent from Graduates and only faculty (7.14%).

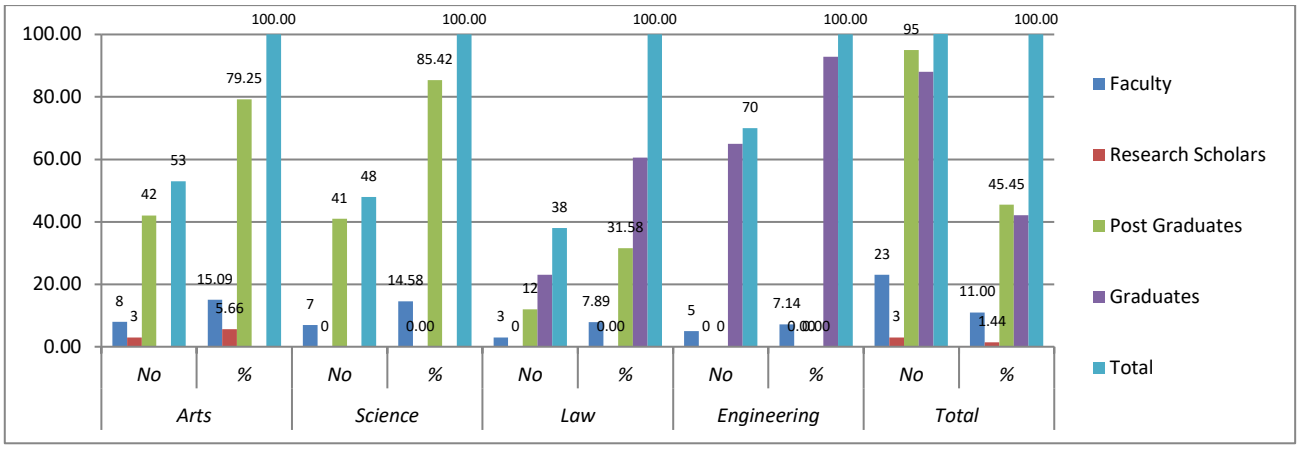

Figure - 2: Frequency Distribution of Type of College Libraries Users

Table -3: Gender wise Frequency Distribution of Respondents

S. No	Category	Gender		Total No (%)
		Male	Female	
1	Arts College	45 (40.54)	08 (08.16)	53 (25.36)
2	Science College	15 (13.51)	33 (33.67)	48 (22.97)
3	Law College	25 (22.52)	13 (13.27)	38 (18.18)
4	Engineering College	26 (23.42)	44 (44.90)	70 (33.49)
	Total	***111*** **(53.11)**	**98 (46.88)**	***209*** **(100.00)**

The Gender wise distribution of respondents reveals that among them nearly 53 percent of them are belongs to male and reaming percent (above 47%) of the users represent those to female users. It reveals that arts college users show the highest percents in males (40.54%), lowest percents in science college users (13.51%), followed by law college users (22.52%) and engineering college (23.42%). It is evident that the male respondents are more when they compared to female users.

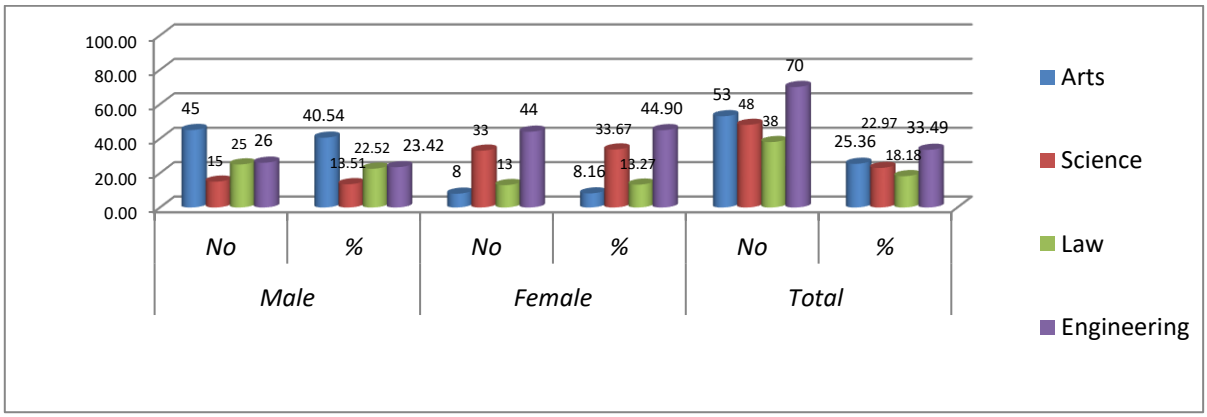

Figure - 3: Frequency Distribution of Gender

Table - 4: Library automated wise Frequency Distribution of Respondents

S. No	Library automated	Type of Colleges				Total No (%)
		Arts	Science	Law	Engineering	
1	Automated	41 (77.36)	00 (00.00)	00 (00.00)	15 (21.43)	56 (26.79)
2	Partially automated	12 (22.64)	05 (10.42)	15 (39.47)	38 (54.29)	70 (33.49)
3	Not automated	00 (00.00)	43 (89.58)	23 (60.53)	17 (24.29)	83 (39.71)
	Total	**53 (100.00)**	**48 (100.00)**	**38 (100.00)**	**70 (100.00)**	**209 (100.00)**

Above table indicating the Library automated wise distribution of respondent's, majority of the users (39.71%) are not automated to the library, followed by (33.49%) partially automated to the library and automated the library (26.79%) respectively. Majority of the automated (77.36%) from arts college, partially automated (89.58%) from science college, not automated (60.53%) from Law college and partially automated (54.29%) from engineering college. Lowest percentage of users Arts College (22.64%) partially automated, Science College (10.42%) partially automated, law college (39.47%) partially automated and Engineering College (21.43%) automated.

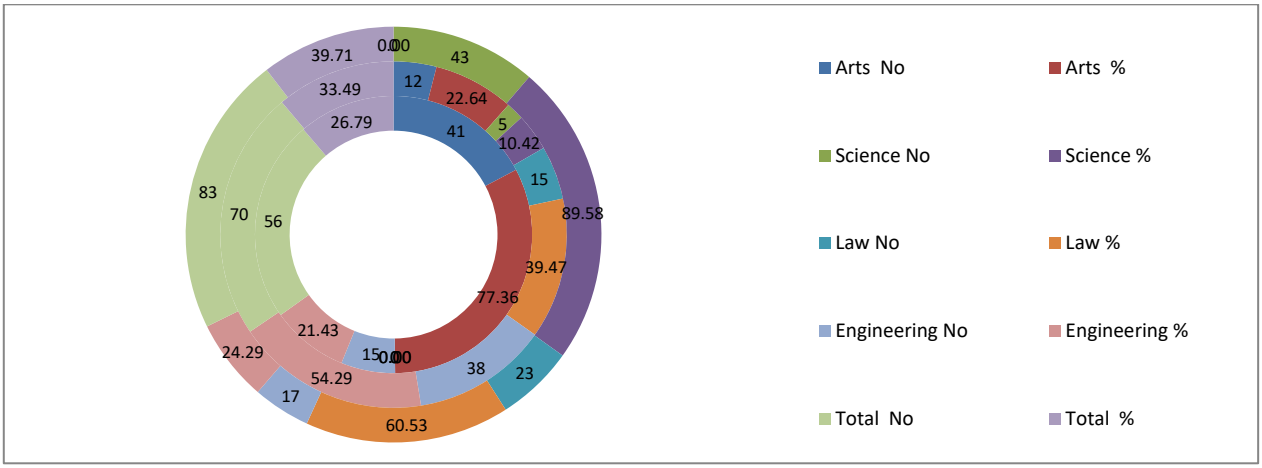

Figure - 4: Library automated wise Frequency Distribution of Respondents

Table - 5: Databases services wise Frequency Distribution of Respondents

S. No	Databases	Type of Colleges				Total No (%)
		Arts	Science	Law	Engineering	
1	CD ROM	41 (77.36)	00 (00.00)	00 (00.00)	15 (21.43)	56 (26.79)
2	INFLIBNET	12 (22.64)	05 (10.42)	15 (39.47)	38 (54.29)	70 (33.49)
3	Multimedia	00 (00.00)	43 (89.58)	23 (60.53)	17 (24.29)	83 (39.71)

	Total	**53 (100.00)**	**48 (100.00)**	**38 (100.00)**	**70 (100.00)**	**209 (100.00)**

Above table explore the opinions about database services to use. Among the listed opinion, highest percent (77.36%) of the arts users opted for 'CD ROM' which is convenience database services. Second highest percent of them (22.64%) preference had given to "INFLIBNET" from arts college. Comparatively science college users highest percent of them chosen to 'Multimedia' (89.58%) their database services, Second highest by 'INFLIBNET' (10.42%). Analysis reveals law college users opinion for database services, highest percent of the (60.53%) chosen 'Multimedia' database services. Second highest (39.47%) from 'INFLIBNET'. Analysis reveals engineering college users opinion for database services, highest percent of the (54.29%) chosen 'Multimedia' database services. Second highest (24.29%) from 'INFLIBNET' and third highest (21.43%) from 'CD ROM'.

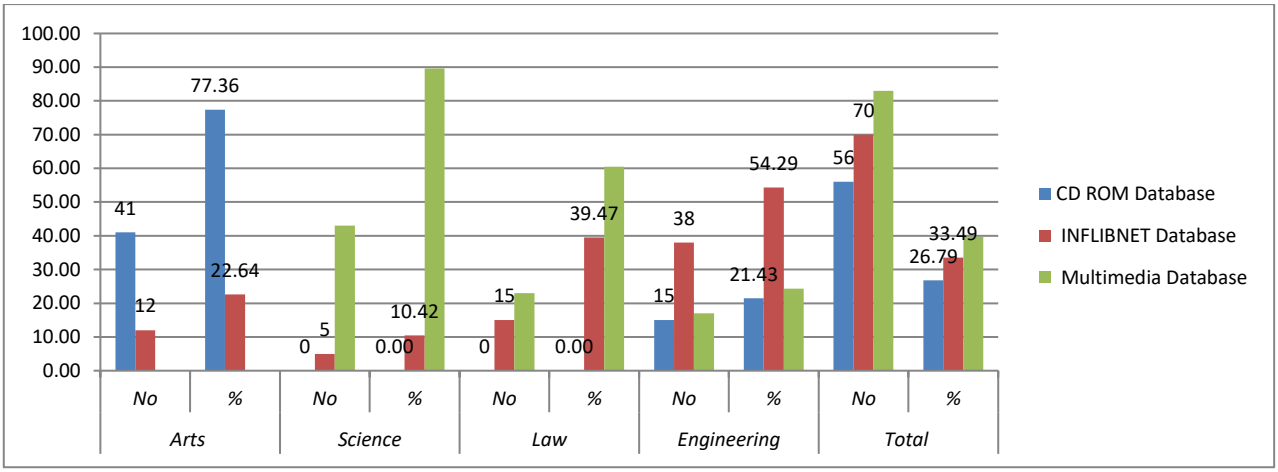

Figure - 5: Databases services wise Frequency Distribution of Respondents

Table - 6: Search Engines wise Frequency Distribution of Respondents

S. No	Search Engines	Type of colleges				Total No (%)
		Arts	**Science**	**Law**	**Engineering**	
1	Yahoo	18 (33.96)	10 (20.83)	06 (15.79)	16 (22.86)	50 (23.92)
2	Rediff	12 (22.64)	11 (22.92)	04 (10.53)	10 (14.29)	37 (17.70)
3	Google	20 (37.74)	21 (43.75)	23 (60.53)	32 (45.71)	96 (45.93)
4	AltaVista	02 (03.77)	03 (06.25)	03 (07.89)	03 (04.29)	11 (05.26)
5	India Times	01 (01.89)	3 (06.25)	02 (05.26)	6 (08.57)	12 (05.74)
6	Others if any	00 (00.00)	00 (00.00)	00 (00.00)	03 (04.29)	03 (01.44)
	Total	**53 (100.00)**	***48*** **(100.00)**	***38*** **(100.00)**	***70*** **(100.00)**	**209 (100.00)**

Above table analyzed the responses from the search engines wise uses regarding the criteria and selecting while use of search engine environment. It is found that the highest percent of (37.74%) arts college users opined that 'Google' as their main criteria for selecting and use in this issue followed by them (33.96%) 'Yahoo' Rediff (22.64%) Alta Vista (3.77%) as their search engine respectively. When it compared to science college uses, it is found that highest percent of (43.75%) of them felt that their main criteria for selection regard the 'Google' Rediff (20.92%) Yahoo (nearly 23%) main certain respectively. Among the database services of uses highest percent of law college (above 60.53%) opined that 'Google' as their main database services, followed by Yahoo (15.79%), Rediff (10.53), AltaVista (07.89%), India Times (05.26%) respectably.

Among the database services of uses highest percent of engineering college (above 45.71%) opined that 'Google' as their main database services, followed by Yahoo (14.29%), Rediff (10.53), India Times ((08.57%), AltaVista (04.29%) and Others if any (04.29%) respectably.

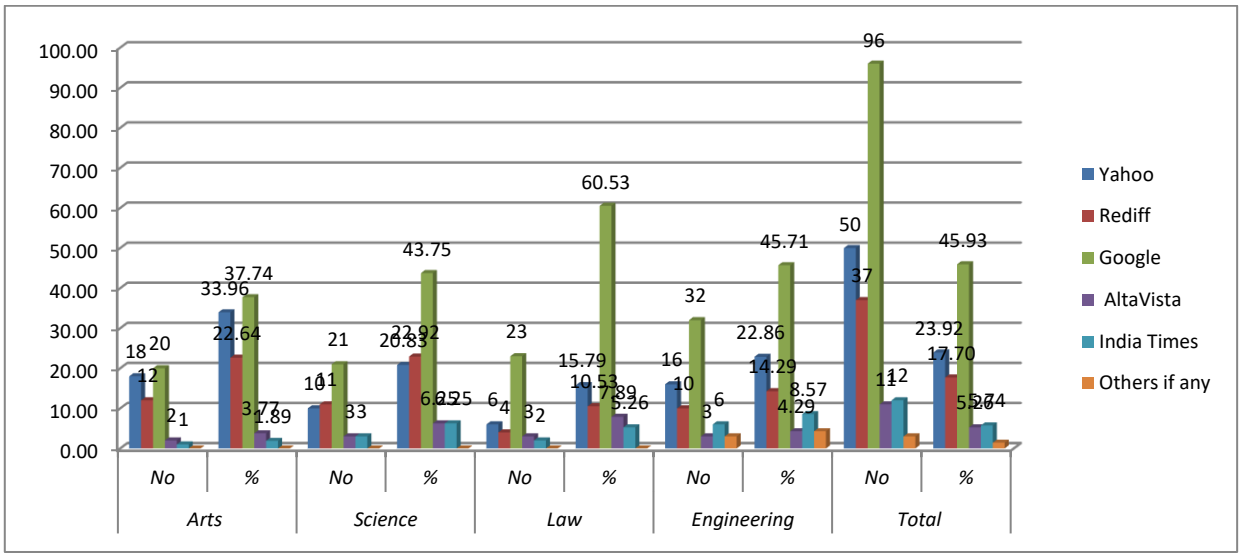

Figure - 6: Search Engines wise Frequency Distribution of Respondents

Conclusion

Many networks are now emerging in India. For participation and also the effective utilization of network resources, it is necessary for the participating members to automate their libraries. Digital technology has raised the hopes and expectations of people to face the challenges. Major responsibility now rests on the decision makers, technological experts, librarians, educationists, social workers, experts, publishing industry as well as the local institutions to play their respective roles in bringing digital information in need based comprehensible form and language to the diverse clientele of the country.

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