

**IMPACT OF ICT APPLICATIONS ON DEVELOPMENT
OF SENIOR COLLEGE LIBRARIES**



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Short Profile

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ABSTRACT:

Developments in ICT have made significant impact on all spheres of human life. The impact has been rather prominent in case of service activities such as banking, health, transportation, education and libraries. College Library is a one of the important component in which advancement in the Information, Communication and Technology has brought a lot of changes in the developments of the senior colleges. In the fast development era of the electronics and indirectly in the field of IT there are tremendous applications in library services. The paper reports the study of implementation of information and Communication Technology (ICT) in the senior college libraries in the jurisdiction of Solapur University, Solapur.

Further, the paper also reflects the impact of NAAC on the use of ICT developments in the college libraries. The use of modern technologies in the libraries shows the lot of advantages due to the implementation various components of the ICT in the library and information system (LIS).

KEYWORDS

ICT Application, Library Development, College Library, Library Services.

INTRODUCTION

In the mid of the twentieth century University Grant Commission (UGC) was established, but the growth of establishment of colleges was increased at the end of twentieth century. Before 1990 there was not much more use of computerization in the senior college library system but when the third generation computers were in forces in the market with several application softwares then there was sudden change in the working style of senior college libraries. Recently there are tremendous applications in the library services available to the library users.

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Establishment of Solapur University is a unique case in Maharashtra to have a separate University for single district. Solapur University was established on 1st August 2004 and all 62 senior colleges in the Solapur district which were initially affiliated to Shivaji University, Kolhapur automatically affiliated to the Solapur University, Solapur. The concept of digital college and digital University in Solapur University was firstly implemented in Jan. 2007 in all 124 senior colleges in the jurisdiction of Solapur University, Solapur. The first module of automation was implemented in 2007 mainly concentrated on the overall College and University administration and examination system, and is successfully running in all 124 colleges and was the initial step of use of ICT in the senior college.

The term 'Information and Communication Technology' (ICT) first heard in 1984 and was defined as "All kinds of electronic systems used for broad casting tele communications and mediated communications", with examples including personal computers, video games, cell phones, internet and electronic payment systems etc. The ICT is a composition of computer and communication technology and the computer technology is the tool for storing and processing information in digital form while communication technology helps us to transfer and disseminate digital information.

ICT refers to technologies that provide access to information through telecommunications. It is similar to Information Technology (IT), but focuses primarily on communication technologies, which includes the Internet, wireless networks, cell phones, and other communication mediums. In the past few decades, information and communication technologies have provided application to the society with a vast array of new communication capabilities i.e. people can communicate in real-time with others in different countries using technologies such as instant messaging, voice over IP (VoIP), and video-conferencing. Social networking websites like facebook allow users from all over the world to remain in contact and communicate on a regular basis. Modern information and communication technologies have created a "global village," in which people can communicate with others across the world as if they were living next door. For this reason, ICT is often studied in the context of how modern communication technologies affect society.

The growth of IT is the revolutionary gift to the modern science and technology and which brought tremendous changes in the library and information science. Application of ICT to library and information changes the new concept of libraries from store house of books to an intellectual information center. ICT has changed the traditional methods of library activities and services providing new dimensions for teaching, learning and research in higher educational institutions. With the help of ICT tools, it is possible to store, retrieve, disseminate and organize information by creating websites and databases. Information is now published both electronically and by print making it accessible to users according to their demands. It is important to assess the ICT applications in library and information centers in the context of changing user needs, shortly the Library automation covers the work related to the information and communications technologies (ICT) where the manual system is totally replaced by computer system.

2. OBJECTIVES OF ICT:

- To provide immediate, easily and high speed access through internet to the users.
- To access huge data within a short period seating at one place.
- To assist every user to develop their ICT skills for accessing information.
- To allow access to computers and the internet for everybody, so that those who are operating books manual not have any innervation between them.

- To give access to digital learning materials, which are set to increase in both quality and quantity.
- To provide staff expertise to seek out information or learning materials-staff become skilled gatekeepers not just of printed sources but of the digitized ones too.

3. ICT COMPONENTS:

ICT applications need effective information networking evenly distributed over the country and supported by personnel skilled in ICT. Major components of information infrastructure are:

- Electronic Communication Infrastructure
- Online information repositories
- Legal Framework
- ICT skilled workforce

4. ICT INFRASTRUCTURE ESSENTIAL FOR A COLLEGE LIBRARY:

A digital library would typically require following equipment:

- Server Computer having updated version.
- Desktop Computer having updated version.
- Client Computer with compatibility
- Digitization Equipment like bar code readers, character readers, optical mark readers, magnetic ink recognizers. Optical character readers etc.
- Network connectivity with high speed of baud rate per second.
- Other equipment like scanners, printers, LCD projectors, head phones etc.

5. ADVANTAGES OF ICT:

Use of ICT has lot of advantages in the College library Services:

- It saves the time and man power by replacing manual work of library staff by computerization techniques.
- It is possible to capture, store, manipulate, and distribute information;
- It provide need-based, (tailor made), browsing and retrospective search services to the users.
- It is easy to introduce and provide new services, revitalize the existing services by providing faster access to the resources, by overcoming the space and time barriers.
- Immediate access to number of national and international journals which are being published only in machine readable form.
- Access library catalogues databases of other libraries through library networks.
- It is easy to store large number of databases in CDs.
- Digitization of the documents for preservation and for space saving.
- Support library functions such as circulation, serials control, acquisition control, stock maintenance and other routine office works and developing in-house database.
- Improve the efficiency of library functions and improve the cost effectiveness of library operations.
- Enables optimum utilization and sharing of resources among institutions thereby reducing the costs.
- Enables better management of library a librarian thereby improving the quality and productivity.
- Use of ICT automatically diverts the College teaching Staff and students towards the research and consultancy.

6. SCOPE OF THE STUDY:

The scope is limited to the senior college libraries affiliated Solapur University, Solapur. The Solapur district is the composition of 11 Talukas affiliating 124 senior colleges including arts, commerce, science, engineering, law, pharmacy, social, education etc. Detail study of ICT applications are focused only on the 10 libraries from 10 taluka places. Viz. Solapur, Pandharpur, Barshi, Malshiras, Sangola, Mangalwedha, Mohol, Karmala, Madh and Akalkkot.

7. OBJECTIVE OF THE STUDY:

Main objective of the study is to explore the application and available of ICT infrastructure in the colleges of Solapur District. The study is conducted with following objectives

- To know various areas/counters where the ICT may be easily applicable in the library.
- To find the current status of the ICT infrastructure in the college library.
- To compare the current status of ICT infrastructure in the senior college library.
- To study the impact of ICT and other associated problem linked with library applications.
- To examine the leading level of the college towards the automation/computerization.
- To knows the various barriers in the way of library automation/computerization.

8. METHODOLOGY:

The present study is a survey type of research using structured questionnaires to collect the data from the college libraries. A well designed questionnaire is used as a principal tool for the collection of the data. Apart from questionnaire interview and observation method is also adopted for the collection of the data.

9. LIBRARIANS QUESTIONNAIRE ANALYSIS:

9.1 The General aspects of the college Libraries:

The year of establishment of the college and current status of the college and library of surveyed colleges are tabulated in the table-1

Table 1.Current Status of the Surveyed Colleges and libraries

Name of the college	Year of Establishment	Reaccreditation		Status of the Libraries		
		Grade	CGPA	Total Collection of Books	Journals/ Periodicals	No. of working staff
Sangmeshwar College,Solapur	1953	A	3.11	82170	40	22
K.B.P. College, Pandharpur	1960	A	3.43	125627	48	14
Shivaji College, Barshi	1960	A	3.11	118522	42	16
V.M.P. College Natepute	1990	B	2.35	36592	22	06
Sangola College, Sangola	1978	B	2.83	105573	32	05
Damaji College, Mangalwedha	1978	-	-	90516	20	03
D. S. G. College Mohol	1990	C	1.87	21374	18	02
Y.C.M. College, Karmala	1966	-	-	69522	22	04
Arts &.Comm. College, Madha	1970	B	2.48	65922	32	05
C. B. K. College,,Akkalkot	1970	B	2.74	49790	45	07

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9.2 Status of Automation of the Surveyed Colleges:

From the source of the questionnaire collected from 10 Colleges, current status of automation of libraries are tabulated in the table-2

Table. 2. Current Status of Automation of the Surveyed College Libraries.

Name of the college	Status of Automation			
	Commencement of Automation	Fully	Partially	Not Provided
Sangmeshwar College, Solapur	2006	✓	-	-
K.B.P. College, Pandharpur	2006	✓	-	-
Shivaji College, Barshi	2008	✓	-	-
V.M.P. College, Natepute	2011	-	✓	-
Sangola College, Sangola	2008	-	✓	-
SantDamaji College, Mangalwedha	-	-	-	✓
D. S. G. College, Mohol	-	-	-	✓
Y.C.M. College, Karmala	-	-	-	✓
Arts and Commerce College, Madha	-	-	✓	-
C. B. Khedaggi College,,Akkalkot	-	-	✓	-

9.3 Infrastructural Facilities available in the College libraries for ICT:

Each Library should be fully equipped for the ICT applications; some available data of electronics/advanced equipments are tabulated in the table-3

Table 3- Infrastructural Facilities Available for ICT in the College libraries

Name of College	Infrastructural Facilities Available in the library										
	SC	CC	PR	FX	XX	IN	GR	TP	LCDP	WC	Total %
Sangmeshwar College, Solapur	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100%
K.B.P. College, Pandharpur	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100%
Shivaji College, Barshi	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100%
V.M.P. College, Natepute	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	70%
Sangola College, Sangola	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	70%
Damaji College, Mangalwedha	No	Yes	Yes	No	No	Yes	No	No	No	No	30%
D. S. G. College, Mohol	No	Yes	Yes	No	No	Yes	No	No	No	No	30%
Y.C.M. College, Karmala	No	Yes	Yes	No	No	Yes	No	No	No	No	30%
Arts and Commerce College, Madha	Yes	Yes	Yes	No	No	Yes	No	Yes	No	No	50%
C. B. Khedaggi College,,Akkalkot	Yes	Yes	Yes	No	No	Yes	No	Yes	No	No	50%
Percentage (%)	70 %	100 %	100 %	50 %	50 %	100 %	30 %	50 %	50 %	30 %	Avg. 63%

Note: -SC: Server Computer, CC: Client Computer, PR: Printers, FX- Fax , XX: Xerox, In:Internet GR: Generator, TP: Telephone, CDP: LCD Projector, WC: Web Camera

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9.4 Area of Automation in the Libraries:

The various areas of services in the automation of the libraries are collected with the help of questionnaires. The table-4 shows the current status of the library services adopted and run by using ICT.

Table 4 - Status of use of ICT in the number of libraries in different areas of Library work.

Area	Completed	Partly Completed	Started	Not Started	Total
Administration	7	-	-	3	10
Cataloguing	3	4	-	3	10
Circulation	3	3	1	3	10
Net Browser	4	1	2	3	10
Use of SOUL	3	-	-	7	10

10. Barriers in Implementation of ICT applications in the College Libraries:

The significant obstacles and the factors that are affecting the use of ICT applications in the College libraries.

- Inadequate Financial support
- Inadequate Management support
- Inadequate Hardware facilities
- Due to untrained/computer illiterate Library staff
- Lack of Training facility to library staff
- Lack of up gradation of basic infrastructure
- Erratic power supply
- Frequently change in Information Technology

11. CONCLUSION:

Collected data of ten different libraries of senior colleges affiliated to Solapur University, Solapur from ten different taluka places gives the current status of the libraries. It is observed that out of ten libraries under study only three libraries fulfill the 100% infrastructural facilities for fulfillment of ICT applications and four libraries partially fulfill the infrastructural facilities, whereas remaining three libraries not fulfill the minimum requirements for the computerization of the library. Therefore, it reveals that the 30% college libraries not adopting the use of ICT applications.

Further, it is also observed that those colleges which are till not reaccredited or obtained the grade C by NAAC not fulfill the minimum requirements in the library for the users. Information and Communication Technology (ICT) is changing the work of libraries. Library is the heart of the every college so to develop the college; ultimately library should have to develop their storage of information sources and library services which are beneficial to all academicians, students and teachers. Recently the impact of NAAC indirectly enforces to develop the senior college libraries for their information sources and library services.

12. REFERENCES:

1. Vijaykumar A., 2012. Application of information communication technology in college libraries:

- International Multidisciplinary Research Journal ,2(2):91-94.
2. Ebijuwa, A.A., 2005. Information and Communication Technology in university libraries: The Nigeria experience. *Journal of Library and Information Science* 7 (1&2): 23-30.
 3. Cholin, V. S., 2005. Study of the application of information technology for effective access to resources in Indian university libraries: *International Information and Library Review*, 37 (3): 189-197.
 4. Islam, A., & Rahman A., 2006. Growth and development of information and communication technologies in Bangladesh: *The Electronic Library*, 24 (2): 135-146.
 5. Watane, Anjali Vinchurkar, A.W. & Choukhande, Vaishal, 2005. "Library professionals", computer literacy and use of information technology application in college libraries of Amaravati city: *IASLIC Bulletin*, 50(3) :131-41.
 6. Sen, Puravi, 2005. "Automation of a college library", Some issues in Automation and Networking of the college libraries, edited by Biswajit Banerjee, Maulana Azad College, Kolkata, 125-26.
 7. Ravichandra Rao, I.K.,1997. " Automation of academic libraries in India: status problems and future," In information Technology Application in Academic Libraries, edited by A.L. Moorthy and P.B. Mangla, Ahmedabad: INFLIBNET Centre, pp.1-4.
 8. Haneefa K., 2007. "Use of ICT based resources and services in special libraries in Kerala": *Annals of Library and Information Studies*, 54(1): 23-31.
 9. Sinha, Manoj Kumar and Satpathy, K.C., 2004. Library Automation and Networking for Managing Library and Information Services. *Indian Jour. Inf. Lib.& Soc.*,17(4): 118-130.
 10. Nagaraju, Ramesh and Vithal, 2007. "ICT implementation and its learning Cutting Edge towards E-learning in the Globalization", *PEARL: A Journal of Library and Information Science*, 1 (4): 39-41.
 11. Md. Shariful Islam and Md. NazmulIslam, 2006. *Asian Journal of Information Technology*,5(8): 809-817.
 12. Varadharajan N., 2007. Digital libraries and Library Professionals in the changing scenario. *PEARL: A Journal of Library and Information Science*,1(4):42- 45.
 13. <http://su.digitaluniversity.ac.in>