Electronic Information Service and its Infrastructure Facilities in College Libraries in Sivasagar

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Introduction:

The explosion of information is becoming a great challenge to the library personnel to access all these proliferated literature. Moreover, rapid development and changes of course curriculum of colleges have created another problem to access all the course related documents like text books, reference books , periodicals, subject journals etc, with a little fund provided by the UGC, Government of Assam and collected fees from the students. In this aspect, Library personnel of these colleges are unable to provide all the required information and required services to their users and this condition have put the librarians into a big challenge.

It is known to all that a library stands on three pillars, first library personnel, secondly users and lastly documents. The library personnel make a bridge between users and information. Since information resources are silent, therefore a medium is essential for proper communication of information.

Development of techniques enabled libraries and information centers into computer age. Library automation, the most beneficial technology for the librarian, enables library staff to perform almost all the functions online. Libraries of present day becoming center of networking of information resources for distribution rather than a centralized repository of the recorded knowledge.

Electronic services are essential to cope with the fast changing logistics of any enterprise in the world. The application of the same in the libraries also allows no alternative. In Assam the use of this benefit of modern science has come late. However the libraries are all set to change their mode of operation even though it is late in comparison to the same in the other parts of the country.

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Objectives of the Study:

The following objectives are selected for the purpose of the present study:

1. To identify the college libraries in Sivasagar district, which are adopting electronic information service infrastructure facilities.
2. To assess the hardware and software facilities available in the college libraries
3. To assess how many information professionals are trained in handling Electronic Services
4. To know the various computerized information services rendered by the libraries
5. To find out the total e-resource collection among the sample libraries

Methodology:

Area based survey has been conducted to collect the information for the present study. To work out this study, data have been collected through interview and questionnaire. Analysis on the basis of these data has also been used to establish the findings. Secondary data have also been collected from the different sources like books, research journals, published and unpublished documents, newsletters, internet etc. These have been collected and tabulated systematically.

Population:

A total of 14 numbers of provincialised colleges are available in the district. Apart from these a good number of non-provincialised colleges are running in the district. In this project, only the provincialised colleges of Sivasagar district are taken.

Tools used in the Study:

A Self structured Questionnaire and an Interview Schedule were used to collect information for this study.

Electronic Information Service :

Use of computers and various modern information technologies has standardize the services of libraries and information centers than the earlier conventional type of information services. Electronic library provides various sophisticated services which reduce the time of the user as well as the space in a library. Some of the important electronic information services provided by the

academic libraries are given hereunder.

1. **E-mail**

Electronic mail is one of the most widely used services on the internet. It is more popularly known as e-mail. It is designed for communication among a pair of individuals or groups. It is one of the fastest way of communication. With the help of this service we can send and receive anything that can be create on computer, words, documents, programs, photo, image and sounds.

2. **Bulletin Board Services (BBS)**

Bulletin Board Services is commonly known as B B S. It is also known as Network News. News reader software allows a person to read a message that has been posted to new groups or to compose and send a message to a group.

3. **File Transfer Protocol (FTP)**

It enables library professional to obtain software programmes, text, image and sound files from the network and then offer them to their customer.

4. **Remote login (TELNET)**

Internet's remote login service is called as Telnet. A remote login facility permits a user who is using one computer to interact with a program on another computer.

5. **Browsing the World Wide Web (WWW)**

The World Wide Web is a system of interlinked hypertext documents accessed via the Internet. With a web browser, one can view web pages that may contain text, images, videos, and other multimedia, and navigate between them via hyperlinks.

6. **Automated Web Search (Search Engine)**

An automated web search engine service allows an individual to find information that resides on remote computer.

7. **Audio and Video Communication (Multimedia)**

This facility provides both audio and video services to its users which is

a very helpful service to interact between two or more person.

Some Salient advantages of DL / EL Services:
a. It allows remote access of resources.
b. At the same time many users from different location can access electronic information, can copy, print and preserve where ever he desires.
c. DL / EL better retrieval and faster communication.
d. DL / EL play a great role in resource sharing via electronic network.
e. Multimedia access / storage are a great advantage of DL / EL.
f. No need of any intermediary to search the document. Search engine can lead a user in this context.

Findings and Analysis: Electronic Services and Infra Structure:
The following tables show the present status of Electronic Information Service and its Infrastructure Facilities in College Libraries in Sivasagar. In the tables the alphabet 'Y' is used to express the availability of services and 'N' for non availability of services.

1. Inception year of Computer in the College Libraries of Sivasagar District:
Modern information technology has played a vital role in providing the various eclectronic services of the library. It becomes easier to retrieve the information at least cost at least time with the help of these technologies (Table-1).

Table-1
Inception year of Computer in the College Libraries of Sivasagar

Sl No.	Inception Years	Number of Respondent 14
1	1997-1998	1
2	1999-2000	-
3	2001-2002	-
4	2003-2004	11
5	2005-2006	-
6	2007-2008	-
7	2009-2010	2

Out of the fourteen colleges surveyed computers were inducted into the libraries as late as 1998 with one college leading in this respect. Most of the other colleges did the same simultaneously within two years that is from 2003 to 2004 while only two colleges has introduced the computers in their libraries by the year 2010. The induction began suddenly mainly because of the NAAC visits to all these colleges.

2. Status of Important Electronic Gadgets in the College Libraries of Sivasagar District:

Library resources have been expanded from the conventional print - materials to electronic gadgets keeping pace with the overhauling changes in all the fields of human activity. The libraries of the colleges of Sivasagar district too have been touched by this trend and hence we find the induction of many such tools of learning making their way in a more or less vigorous way from college to college as reflected in the Table-2.

Table-2
Status of Important Electronic Gadgets in the College Libraries
of Sivasagar District

Sl No	Name of the College	E-books	CD	DVD	Floppies	Audio Cassette	Video Cassette	Micro film	Magnetic Tape	Gramo Phone Record
1	Sibsagar College , Joysagar	-	175	45	15	54	15	*	-	-
2	Gargaon College , Gargaon	650	55	35	10	10	-	-	-	-
3	Jhanji H N Sharma College	-	26	10	-	-	-	-	-	-
4	Moran College, Moran	125	48	5	10	-	7	-	-	3100
5	Swahid Moniram Dewan College, Charing	-	20	10	-	-	-	-	-	-
6	Sibsagar Girls' College, Sivasagar	150	35	12	8	-	-	-	-	-
7	Hem Chandra Deva Goswami College, Nitaipukhuri	-	45	22	-	-	-	-	-	-
8	Swahid Pioli Phukon College, Namti	-	25	9	-	-	-	-	-	-
9	Sonari College , Sonari	-	35	20	-	-	-	-	-	-
10	Demow College. Demow	-	28	12	6	3	2	-	-	-
11	Nazira College , Nazira	50	150	50	5	6	5	-	-	-
12	Amguri College, Amguri	-	7	-	-	-	-	-	-	-
13	Sibsagar Commerce College, Sibsagar	-	15	7	-	4	-	-	-	-
14	Dikhow -Mukh College, Dikhowmukh	-	-	-	-	-	-	-	-	-

Keeping in view the socio-cultural backdrop of Sivasagar district which is basically agrarian, some of the colleges could well be accepted as advanced in the procurement and use of the said gadgets while a few are lagging behind that seems to be matter of concern. While the colleges with serial no 3,5,7,8, 12 and 14 in the table are almost a poor of these facilities, the colleges at 1, 2, 4 ,6 and 11 are making a significant headway. 92.86 % of colleges have different educational CD and DVDs, 28.57% of college libraries have e-books, audio and video cassettes and only 7.14% i.e. only one college has posses a good numbers of Gramophone records.

3. Different Electronic Services provided by the College Libraries of Sivasagar:

Out of all only 78.57 % Colleges have internet and e-mail facility, 35.71% Colleges provide Bulletin Board Service, 35.71% of College have e-journal facility, 57.14% colleges provide OPAC service, 42.86% Colleges provide circulation service.

Reprography is of utmost demand everywhere. 92.86% of the surveyed colleges have responded to the call of time while a considerable proportion i.e. 7.14% of the colleges have not yet offered this service.

All the colleges use electronic tools in different house keeping operations and management of the libraries. Still a few colleges of the district are lagging behind from providing the required electronic information services to its users. Internet connectivity has been availed by majority of the colleges of the district and one of these has got its own V-SAT system and another is making use of the EDUSAT facility. While a few access it through BSNL broadband, Lease Line connection.

Table-3
Electronic Services provided by the College Libraries of Sivasagar

Sl. No.	Name of the College	Data base	Electronic Consortia	Electronic Document Delivery Services	Automation		Facsimile Service	Library self web sites	CAS and S DI Services
					Automated	Partially automated			
1	Sibsagar College , Joysagar	Y	Y	N	N	Y	N	N	Y
2	Gargaon College , Gargaon	Y	Y	N	N	Y	N	N	Y
3	Jhanji H N Sharma College	N	N	N	N	N	N	N	N
4	Moran College, Moran	Y	Y	N	N	Y	N	N	Y
5	Swahid Moniram Dewan College, Charing	N	N	N	N	N	N	N	N
6	Sibsagar Girls' College, Sivasagar	Y	Y	N	N	Y	N	N	Y
7	Hem Chandra Deva Goswami College, Nitaipukhuri	N	Y	N	N	N	N	N	Y
8	Swahid Pioli Phukon College, Namti	N	N	N	N	N	N	N	Y
9	Sonari College , Sonari	Y	N	N	N	N	N	N	Y
10	Demow College. Demow	Y	N	N	N	Y	N	N	Y
11	Nazira College , Nazira	Y	N	N	N	Y	N	N	Y
12	Amguri College, Amguri	Y	N	N	N	N	N	N	N
13	Sibsagar Commerce College, Sibsagar	N	N	N	N	N	N	N	Y
14	Dikhow-Mukh College, Dikhowmukh	N	N	N	N	N	N	N	Y

Data base service has also been utilized by 57.14 percent of the libraries and the remaining has not yet used the same. Only 35.71% of colleges have taken the membership of e-consortia under the INFLIBNET, Ahmedabad. Apart from this Electronic Document Delivery Services is still a virgin area in the district as shown by the Table-3. As in the case of Facsimile Service is still a far cry in the colleges surveyed. None of the libraries have been fully automated. Less than 50 percent have started automation and more than 55 percent have not yet stared the process altogether. It seems that no college library of the district has its own web sites. After the study it came to our notice that approximately a satisfactory proportion of the college libraries i.e. nearly 80 % of these have CAS and SDI services.

4. Infrastructure Available in the College Libraries of Sivasagar District:

Table-4
Infrastructure Available in the College Libraries of Sivasagar District

Name of the College	LAN facility	Computer Server	Printer	Xerox	Barcode Printer	Barcode Scanner	General Scanner	CCTV Camera	Audio Visual Instruments	Library Professional Software
Sibsagar College, Joysagar	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
Gargaon College , Gargaon	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Jhanji Hem Nath Sharma College	-	-	Y	Y	N	N	N	Y	Y	Y
Moran College, Moran	Y	Y	Y	Y	N	N	Y	Y	Y	Y
S M Dewan College, Charing	Y	Y	Y	Y	N	N	N	Y	N	Y
Sibsagar Girls' College, Sivasagar	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
H. C. D. G. College, Nitaipukhuri	Y	Y	Y	Y	N	N	N	Y	N	Y
Swahid Pioli Phukon College, Namti	Y	Y	Y	Y	N	N	N	Y	Y	Y
Sonari College , Sonari	Y	Y	Y	Y	N	N	N	Y	Y	Y
Demow College. Demow	Y	Y	Y	Y	N	N	N	Y	Y	Y
Nazira College , Nazira	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
Amguri College, Amguri	Y	Y	Y	Y	N	N	N	N	N	Y
Sibsagar Commerce College	Y	Y	Y	Y	N	N	N	Y	Y	Y
Dikhow Mukh College	Y	Y	Y	N	N	N	N	N	N	Y

It seems (Table-4) that a good numbers of colleges have the telephone land line connectivity but most of the time these are lying obsolete due to technical problems. 78.57% colleges have internet connection and 92.85 collages have Local Area Network (LAN) facility. Most of the LAN systems are connected with the administrative office of the college. Almost all the colleges have computer printer

to provide the printing services to the users as well as to use in different house keeping operation of the library. 14.29% Barcode Printer where as 28.57% colleges have Barcode Scanner and 37.71% of colleges have general scanner to scan the document and to convert it to digital form. 85.71% of colleges have installed CCTV Camera to monitor the resources of the library as well as for vigilance of its users. All the colleges have acquired the library professional software package entitled SOUL developed by INFLIBNET, Ahmedabad. Different audio visual tools are available in a good numbers of colleges of the area.

5. Server :

The availability of server facilities could be seen that all colleges have got server facility in their libraries. This is to operate their professional package which strictly network version. It could be seen clearly from the observation that only 21.43% of institutions have IBM and Intel servers and rest of the college libraries adopted assembled servers to maintain the network system.

6. Operating System :

All the College Libraries of Sivasagar district have windows operating system. Apart form that only a few colleges posses Linux operating system in their libraries to browse internet by its users.

7. Application Software Used in the College Libraries of Sivasagar:

All the College Libraries of the district have SQL Server data base software and some of the libraries use MS – Access data base software. The library is not using any Oracle database software, Sybase & FoxPro data base software in their libraries. Some of the libraries use Photoshop software as DTP software. Apart from this all the college libraries of the district use SOUL network version 1 and SOUL network Version2 as the library professional software for automation of the library.

8. Skilled Persons in Electronic Services :

Table-5
Skilled Manpower Strength of the College Libraries of Sivasagar

Name of the College	Number of Skilled Person(s) in ICT		
	Yes	No	Numbers of Skilled persons
Sibsagar College , Joysagar	Y	-	3
Gargaon College , Gargaon	Y	-	4
Jhanji H N Sharma College	Y	-	1
Moran College, Moran	Y	-	3
Swahid Moniram Dewan College, Charing	Y	-	2
Sibsagar Girls' College, Sivasagar	Y	-	3
Hem Chandra Deva Goswami College, Nitaipukhuri	Y	-	1
Swahid Pioli Phukon College, Namti	Y	-	2
Sonari College , Sonari	Y	-	2
Demow College. Demow	Y	-	1
Nazira College , Nazira	Y	-	1
Amguri College, Amguri	Y	-	1
Sibsagar Commerce College, Sibsagar	Y	-	1
Dikhow -Mukh College, Dikhowmukh	Y	-	2

In 52.14% of College Libraries of the district is running with two or more than two ICT skilled persons while in 42.86% of colleges due to shortage of manpower except librarian it becomes difficult to provide the electronic services to the users in time. This is one of the factors for which some of the libraries are deficient of electronic gadgets and electronic information services.

Findings :

The findings of this project have been acquired through a study of extant literature, intensive survey, personal observation, opinions and suggestion of people interested in the particular area. From the study, it has been found that the college libraries of Sivasagar district are facing diversified problems since their beginning. These libraries have not been able to get rid of these maladies since their birth, although a few libraries of these are trying to face them but in a slow process.

The college libraries in this part of the state have no adequate facilities in terms of

1. Human resource
2. IT and IT based Tools
3. Electronic resources
4. Networking and communication
5. Automation

Human resource updating should be endless concern of the libraries. 42.86% of the college libraries are found to be lacking in manpower against the scenario that a modern library needs. While some of the college libraries lack adequate IT based tools and gadgets etc. At the same time a select few have been equipped with equipments like VSAT and EDUSAT and membership to e-consortiums.

Web page information of the library holdings has not been done by any of the libraries covered by this study. Colleges have their own websites publishing all the information including that of the library. But none of the colleges have taken any measure for online publication of the holdings. The emerging scenario is one of uneven development. Because of many factors like the motivation of the librarian and the administrative mechanism of the parent organization, electronic resources too have not been adequately procured and used in these libraries. But a modern library is bound to have the minimum of such tools.

In the area of Networking and communication, 21.43 percent of the colleges have been found to have done almost nothing while a few of the rest have excelled beyond what is expected given their location and status. Automation is yet to be fully completed. Libraries which have been partially been automated are also below 50 percent of the total libraries.

In brief, the emerging picture is neither very encouraging nor very disappointing. Time, it seems that is set to change the course of events very soon.

Recommendations :

On the basis of the observations the following recommendations are being made to update the college library services in Sivasagar district in particular-

1. Procurement of sophisticated electronic tools and equipments.
2. Upgrading and employment of properly trained and qualified personnel as Assistant librarian, Library Assistant and Library Bearer.

3. Pace of Automation completion should be faster and time bound in those libraries where it has been started and should be encouraged in those where it has not been undertaken altogether. Only it will fulfill the fourth law of Library Science –'Save the time of the reader.'

4. Application of IT should be boosted up by making use of all sorts of available grants released for the purpose.

5. A framework for district level consortium could be opened to tackle the problems of accessing and affording the highly paid services in the field of information and research.

Conclusion :

A library known as the repository of knowledge is expected to contain maximum of information for the users. In the present days of globalization and Information Technology, the library is no longer confined to a geographical space. It can have its own virtual space also. In its ideal form it transcends the limitations of time and space. But for all this it has to be ready to incorporate all the electronic information resources and Information Technology and related paraphernalia.

The present study has looked into different dimensions of the issue and has found that the application of electronic resources in the College Libraries of Sivasagar district have not been up to the expectation. Individually, a few of the college libraries are quite ahead of majority of the libraries making use of almost all the electronic resources. While these few libraries could serve as ideal ones in the region, the others need strong revamping to respond to the fast changing scenario. Knowledge is and has to be empowering. A library is a storehouse of knowledge. Proper knowledge needs timely up-gradation. So updating of the libraries is a must not only for the colleges themselves but also to render dignified service to the society. In modern times, this can happen only if electronic assets are fully utilized. It should also be kept in mind that digitization of the libraries is also on the rise. Without a proper infrastructure, these smaller libraries might face challenges that will be too powerful to face. It too calls for adoption of timely measures. In modern times, this can happen only if electronic assets are fully utilized.

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