GRANTHAKUTI

(An Annual Journal on Library and Information Science)

Editor : **Mrs. Dipika Das**

GUIDELINES FOR CONTRIBUTIONS

1. The main objective of GRANTHAKUTI, annual journal of the Central Library, is to promote library and information science literature and to attach non-professionals with LIS and related studies.

2. This publication will accommodate papers from contributor(s) having research value. The word limit is 3000-4000.

3. Reference format should maintain in APA style.

4. Accuracy and completeness of literature citation should be ensured.

5. English texts must be in Times New Roman (12pt) font, Paper size A4.

6. At least one hardcopy of the paper(s) and a softcopy shall be submitted alongwith an abstract not exceeding 150 words composed preferably in 'page- maker'.

7. Mailing address: Librarian, Dibru College Central Library, PO – Boiragimoth, Dist.- Dibrugarh. PIN – 786003.

8. Digital text may be sent through mail to librariandipika79@gmail.com. The papers will be accepted for publication after being reviewed by experts in the respective areas.

9. The editorial board and editor are not responsible for views and opinions expressed in the articles.

10. Author must submit a duly signed declaration regarding the originality of the paper.

GRANTHAKUTI

(An Annual Journal on Library and Information Science)

Vol. II

IMPACT OF ICT IN LIBRARY SERVICES

Editor :

Mrs. Dipika Das

8 6 3 8 5 1 6 0 4 3

In Loving Memory of

Mr. Nilim Choudhury
29-06-1960 to 11-08-2011

एक कुशल लाईब्रेरियान गजव का स्मरण शक्ति, जिम्मेदार पत्रकार, लेखक, सहृदय मित्र निलीम चौधुरी को भुलाना आसान नही। हमे उस पर गर्व है।

– डाँ अलख निरजंन सहाय

Mr. Nilim Choudhury : A biographical Sketch.

BIOGRAPHICAL SKETCH :

1960 : Birth	: Born on 29th June, Rang Mahal, North Guwahati.
Father	: Late Nagendra Nath Choudhury.
Mother	: Mrs. Jonali Choudhury.
Education	: Primary schooling from Kumaranisiga Primary School , Dibrugarh.
	: HSLC from Don Bosco High School
1984 :	: BA from DHSK College.
1989	: MA in Political Science from Dibrugarh University.
1995	: BLISc (Bachelor of Library and Information Science) from Gauhati University.
2005	: MLISc (Master of Library and Information Science) from Indira Gandhi National Open University (IGNOU).
2000 : Marriage	: Married with Mrs. SubasanaMahanta in 10th March.
1981 : Services	: Appointment as employee in Dibrugarh University.
2001	: Upgrade to Assistant Librarian in Dibrugarh University.
2007	: Joined as Deputy Librarian in Dibrugarh University.
2009	: Joined as Director (i/c) of Centre for Library and Information Science Studies (CLISS), Dibrugarh.
2011	: Appointed as a Librarian In-charge in LNB Library, Dibrugarh University.

Media Service :

Staff Reporter and writer in AjirAsom, The Sentinal, The Eastern Clarion, Dainik Janambhumi, UNI for two decades.

Social Services :

Secretary of Dibrugarh District Table Tennis Association, General Secretary of Dibrugarh District Journalist Association, President, Gen. Secretary and Auditor of Dibrugarh Press Club, Member of Asom Gana Parishad, Dibrugarh Town Committee.

Others : Quiz Master.

2011 : Death : Leaving his breath on 11th August.

Compiler
Dr. Hemanta Barman
LNB. Library
Dibrugarh University

MESSAGE

I am happy to learn that the Central Library, Dibru College has decided to publish a journal 'Granthakuti - Vol. II" on the occasion of Librarians' Day, 2016. I hope the journal will provide valuable information and will be found useful by all concerned. This is indeed a laudable step towards ensuring the much needed in my comprehension would be a potent contribution to the growing of the budding academic talents and sensitization of Library and Information Science concerned.

I would like to congratulate the member of Editorial Board and to offer my heartiest felicitations and best wishes for sincere effort in this endeavour. Iam also grateful to all those who have been associated in the publication of this journal. The entire approach of such commitment coupled with teachers and librarians will no doubt create a distinct for the librarians.

P Boruah
Dr. Poresh Boruah
Principal
Dibru College, Dibrugarh

Principal
Dibru College, Dibrugarh

EDITORIAL

The Information and Communication Technology (ICT) is an indispensible part in Library and Information services in digital era.The theme impact of ICT in Library Services is selected for the demand of the age. The main aim of a library is to fulfil the need of the user. The expectations of users in information age are diversified and interdisciplinary. They need right information at right time. For the day to day increasing of science and technology, the literature is doubling in few days. To retrieve proper information in a second it is a helping hand of ICT.

The present volume is second volume and it is brought out as 'Impact of ICT in Library Services'. In this volume ten contributors have authored. Mrs. Hira Kalita writes on "Impact of ICT in library services with special reference to Jorhat Medical College Library". She draws a case study on application of ICT tools and techniques for providing up to date service to Medical College students, teachers and non-teaching staff. Dr. Nirmal Ranjan Majumdar, Dr. Dipen Deka and Mr. Khagen Kalita write on 'ICT application in Library Orientation Programme: a plan for academic library'. They propose a model on technology based library orientation programme for academic library. Upasona Borchetia has made an analytical study on 'Application of ICT and related manpower problems : a study with special reference to three selected college libraries of Golaghat District'. Geetima Katakey authors on 'Influence of IT on the services of the special libraries of Upper Assam'.

Dr. Bobby Goswami Baruah highlights on the various library networking system in India in 'Library networking : an application of ICT'. Mrs. Rashmi Rekha Buragohain and Mr. Abhijit Borpuzari describe on 'ICT application in selected public libraries of Sivasagar District: a study'.Mrs. Nirmali Chakraborty analyses on 'Web-based services at IITs: a study'. Tilak Sarma has authored on 'Scenario of ICT application in the college libraries of Dhubri district: a study'. It analyses librarians perception of the different IT tools and problems faced by the librarian in using IT infrastructure. Mr. Trinayan Borgohain and Ms. Nandita Barman has analysed the 'Social networking sites: a new form of communication for modern libraries.'It extended the services of library

with a new vision. Mrs. Dipika Das and Mr. Dipankar Debnath write on 'ICT on Library and Information Science in College libraries of Assam with special reference to Dibrugarh and Tinsukia District : a study.'

All these papers are informative. We will be happy enough if readers go through the papers and library professional would add something new in their workplace.

We are thankful to all the authors who have contributed their papers in this volume. We dedicate this volume to the loving memory of Late Nilim Choudhury, who was the Librarian (I/C), LNB Library, Dibrugarh University, Dibrugarh.

We are grateful to our Principal Dr. Poresh Boruah for his positive attitude and financial support which gives us the inspiration to bring out the issue in reality. We sincerely give heartiest thanks to Dr. R C Gaur, Dr. S K Singh, Mr. U K Gogoi, Dr.Mukesh Saikia, Dr.Hemanta Barman, Mr. Bikash Tutty for their cooperation and for valuable suggestions. We are thankful to all the members of Editorial Board. We welcome all the team of Reeta Binding & Printing Works who has printed this issue timely.

At last, I beg blessings and co-operation from Dibru College Community, well-wishers and readers of new generation for the GRANTHAKUTI to be a memorable one.

Mrs. Dipika Das

DIBRU COLLEGE CENTRAL LIBRARY
DIBRU COLLEGE, DIBRUGARH
HISTORICAL FACTS

1963 : Born simultaneously with Dibru College
1968 : Joining as first Librarian Late Nandeswar Phukan on 1st February.
2004 : NAAC investigation of Central Library
2005 : Retirement of 1st Librarian on 1st May
2008 : Joining as second Librarian Mrs. Dipika Das on 20th October
2010 : Installation of Soul 2.0
2011 : Completed the data entry
     : Observed Librarians' Day on 12th August
     : Published a souvenir 'Granthakuti'
2012 : Initiation of E-resource Section
     : Join in NLIST Programme, INFLIBNET
2013 : Observed Rabha Dibas on 20 June
2014 : Initiation of Barcode
     : Published Granthakuti, Vol-I, ISSN: 2349-7386
     : Observed Librarians' Day, on 12th August
     : Initiation of Internet Section
     : Visited SOUL Software designer Yatrik Patel, Scientist-D (CS) and Divyakant Vaghela, Scientist-B (CS)
2015 : Started New Library Building on September
2016 : Shifted to New Library Building from 21st March.
     : Opening New Library on 5th April
     : Published Granthakuti, Vol II, ISSN:2349-7386

Total Collection		Staff Strengths	
Text Book	: 38639	Library Staff :	7
Reference Book	: 850	Professional :	2
Book Bank	: 1500	Non-Professional :	5
Rare Book	: 2000		
Jounal	: 08		
Newspaper	: 05		
Back Volume	: 30		
E-Book	: 135000+		
E-Journal	: 6000+		
CD/DVDs	: 30		
Computer	: 10		
Printer	: 02		
Barcode Printer	: 01		
Scanner	: 02		

Contents

Impact of ICT in Library services with special reference to Jorhat Medical College Library

Hira Kalita

Abstract :

Information is the most crucial and primary resource for research and development and it is closely related to every people for the growth and development of this paperless society. Discusses about the application of ICT, ICT tools and techniques and its impact on Jorhat medical college library services for providing the up to date service to the medical students, health professional staff and the other nonteaching staff.

KEYWORDS : INFORMATION, APPLICATION OF ICT, ICT TOOLS, MEDICAL COLLEGE LIBRARY

1. Introduction

A medical library is basically related to MBBS/PG students, health professionals, medical researchers, clinical and nonclinical doctors and faculty members in finding out their health and scientific information by which they can improve access, update, and regenerate and evaluate their needed information. Medical libraries are an important parts of health care organizations and serve one of the most important communities of a society the health care professionals. These professionals should be aware about the latest developments in their fields for the better improvement of their profession.

Information is a vital resource for human being. We are living in a constantly evolving digital world where ICT has an impact nearly every aspect of livlihood. The ICT describes the computer based technology and the internet to make information and communication services available to a wide range of users. Ebijuwa and ToAnyakoha (2005) [1.2] define ICT as "tools and as well as means used for collection, capture, process, storage, transmission and dissemination of information."

2. Objectives of the study :

2.1 To find out the application of ICT in library services.

2.2 To explore the role of ICT in medical education and research.

Librarian, Central Library, Jorhat Medical College, Jorhat

2.3 To know the improvement of existing resources and services.

2.4 To know the effective utilization of ICT in conventional library.

2.5 To know how the traditional bookkeeper can change their professional skill by using the new tools and techniques of ICT.

3. Jorhat Medical College Library : an overview

Jorhat Medical College Library is named as Central Library which was established in 2010 with the help one professional staff along with two non professional staff and rendered the services 100 students and approx 200 clinical and nonclinical health professionals. But later on it is gradually developing and now the total user will be approx 600 users. The Central Library has now 5 professional staff, 3 semiprofessional staff and 1 nonprofessional staff. The total collection of the Central Library will be 9653 both text as well as reference books. The SC Book Bank facility also available in the library, the collection of the SC Book Bank will be 287. There are 70 Indian Journals and 30 foreign journals of different title of different health related subjects. There are 350 CD/DVD and 328 WHO collections. The library regularly subscribe the 5 newspapers local as well as national and magazines like CSR, Pratiyogita Darpan, India Today, Diabetic Health, Sasthya, Prantik. The Central Library has 52 computers with internet and WI FI facility. The library always open at 8 AM and Close at 10 PM in two shifts.

4. Application of ICT in different services of Jorhat Medical College Library:

Now a days ICT is used in various housekeeping, management and administrative functions of the library. Different electronic and digital media, computer aided tools, networks and internet has provided a significant role in accessing and dissemination of different types of information and playing a most important role for developing the library. The medical students need a wide variety of information to meet their clinical and educational needs. The Central Library, JMC providing the different types of services to its clientele.

4.1 Acquisition service : The acquisition service is done on the basis of recommended book list from the faculty members and also from the students required book list. The list is sent either email or print form to the librarian and then the librarian organizes a meeting with the library committee. Basically the books are procured from book exhibition which is held by some reputed vendors/supplier. The latest text books and

revised editions are procured every year. The reference books are also selected on the basis of required basis of the users.

4.2 Reference Service : The reference service is one of the most important services in any kind of library. Now a days FAQ (Frequently Asked Question) service is also provided by the librarian to the user. The Medical students and faculty members regularly approach the librarian to know about their needed information and in that case sometimes that information is not available in their printed material but the librarian is anytime ready to give the information. And this type of information is provided either through mail or by circulating some printed paper to that particular user.

4.3 Circulation service : The books are issued for MBBS student for 15 days and 3 months for PG and health professional staff. Besides renew facility is available for those users again for two times. All the records are maintained in a database as well as in the loan register. When the books are not returned on due date for those users a reminder letter is mailed by E-mail to their respective mail id and sometimes SMS also provided to their mobile no. The addresses along with their image of every library members are kept in database.

4.4 CAS/SDI Service : CAS is an essential service for the medical library user for promptly aware about the new arrival books and journals. Such type of information is displayed on the notice board. The SDI service also formulated to deliver current information of their respective interest to the students as well as respective faculty members.

4.5 Access to database : The Central Library has a collection of CD/DVD of text as well as reference books. These are installed in the internet section computers. And the user can access their required information or they may sometimes download in their respective CD and pen drive. The free online journals and free e-books are highly accessed by the medical students. Sometimes the students are seeing in you-tube the online surgical operations which is provided in other foreign medical college by using some new tools and techniques.

4.6 News Clipping Service : This is one of the CAS provided by print/photocopy form in the Central Library, JMC. To provide this service the documentalist select some news from news papers and then the important clipping are pasted on the register. These are also saved in digitized form for easy accessing for the users.

4.7 Indexing/Abstracting Service : The indexing and abstracting of every books and journals are created by the documentalist first manually. Then a database is created

for indexing as well as abstracting. This is very helpful for users to searching their information from respective subjects.

4.8 Cataloguing Service : The books are catalogued by the cataloguer with the help of AACRII. OPAC facility is still not provided in the JMC central library for the users for some technical problems. Only the database is created in the SOUL 2.0 S/W.

4.9 Newsletter Service : It is a very good service for the medical library users, listing are available through internet in the college web site about the new additions of books and journals and other library related notice. These information sources are also circulated through email facility.

4.10 Reprographic Service : The reprographic service is provided freely for the every library members as well as the other administrative official staff. In the reprographic section a register is maintained for keeping the daily record.

5. Impact of ICT in JMC Central library and its professionals :

Computer has brought a tremendous change to the library users as well as library professionals to provide the quality and valuable information service .The developments in ICT are quite fast and the digital revolution has brought a series of transformation. The challenges and opportunities of readership development within the ICT environments have changed the challenging user habits and library acquisition trends. As the 21st centaury threshold social networking, blogs has enhanced the library outreach and professional collaboration. Through the development of modern ICT the libraries have reached a paperless environment. The impact of ICT has changed the users reading habit system and the responsibilities of the library professional. The application of ICT has resulted into considerable reduction in time, in accessing the required information by using different websites, search engines and other retrieval mechanics. The increased use of web2.0 and web3.0 technologies is used to facilitate more directly by users to review of library resources.

The focus of the medical library professional is to emphasize the use of evidence based research and practice. The library professional should be always adaptable with the new tools and techniques, skills, ICT related education and training program to improve their efficiency for manpower working. It will increase technical and professional skill by new awareness and development of digital trends. The impact of ICT will able to fulfill the 5 laws of library Science in the library.

6. Conclusion :

The central library, JMC is a combination of traditional as well as ICT equipped library. It has a reach printed collection of latest text, reference books and journals. ICT has now completely changed the scenario of traditional library meaning for storage, preservation and dissemination. The medical library users are aware about the most modernized tools and techniques of ICT and for that each of the user use internet, smart phone to search their information which is easily accessible for them within short duration. The LAN facility also available in the JMC campus and for it student and faculty members can anytime browse their new and advanced health, disease, patient care and hospital management related information. The library professional also help the users in retrieving their information.

7. Recommendations :

7.1 Inadequate ICT infrastructure and the lack of proper maintenances. The authority should be concern and wish to do for the development of ICT based and digital medical library for the users.

7.2 Lack of ICT based knowledge among the library professional as well as library users. And for that parent organization can organize the training and workshop for the professional as well as users.

7.3 Lack of E-resources found will be necessary the medical library users. And to fulfill it sufficient fund will be necessary from the concerned authorities.

7.4 There should be extra regular power supply for the computer users in order to keep time factor so that more intention will arise in the use of ICT facilities in the library.

7.5 Lack of Total security in the PC of internet section by which data are corrupting timely as well as the machines are in idle for the overload of viruses in this computer. So there is need of antivirus in each and every computer in the library.

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7. WWW/google.co.in

ICT application in Library Orientation Programme : a plan for academic Library

[1] Dr Nirmal Ranjan Mazumdar, [2] Dr Dipen Deka, [3] Khagen Kalita

Abstract :

The basic objective of this paper is to analysis the possibility of using ICT for Library Orientation. Programme. Application of ICT in different aspects of library activities is a common practice in present days. Library Orientation Programme is a very essential activity to make the library more usable. This paper discusses the prospects of ICT in designing and providing the Library Orientation Programme of the academic library. In academic libraries, the Library Orientation Programme is a crucial task for the librarian and the ICT application can make the Library Orientation Programme more attractive and user-friendly. A numbers of leading academic institutions have already adopted technology based library orientation programme. A model has also been proposed in this regard which can be adopted by an academic library.

Keywords : Library orientation programme, Multi-media, User education, Virtual Tour.

1. Introduction

The application of ICT has brought tremendous changes in all aspects of the academic environment of higher education system. With the advanced application of information & communication technology, academic library is also changing its traditional concept rapidly. Now academic Libraries become a global information hub for retrieving and accessing vast amount of information with a single mouse click on the computer monitor.

But the availability of the largest amount of information confuses the library users to choose the relevant one. This orientation programme makes the users to familiarize to the resources and services and help in finding the right information at the right time in a right way from the midst of information ocean. This encourages the users to retrieve the right and relevant information.

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2 Assistant Professor, Department of Library & Information Science, Gauhati University
3 Professional Assistant, Central Library, Bodoland University, Kokrajhar

2. Library Orientation Programme

The Library Orientation Programme (LOP) is an essential library service that is mainly offered to the users, with the basic objective to introduce the newly enrolled users with the library as well as to orient them in accessing and using a variety of information sources effectively.

In this Programme, an introduction to the physical layout of the library building is also given. In academic library environment, , the librarian generally takes a schedule programme where the librarian or other library personnel deliver a talk on the library system and services offered by the respective library.

In some cases, posters, charts, demonstration etc. are used in this face to face progarmme. Some academic libraries provide a library guide book/booklet mentioning all details about the services and resources along with the rules & regulations of the library.

3. Program objectives

The core objective of LOP is to familiarize the user with the system followed in a particular library. In LOP a user is introduced to the library facilities, resources, services and the available resources of a particular library. Besides the conventional library system, the users are accustomed with basic database searching techniques, OPAC search, using library web page etc. in the LOP. The importance of library in the academic institutions is brought into the light by LOP.

4. Library Orientation Programme: some problems

The Library Orientation Programme is an important activity of an academic library. But in practical field, in the procedure of providing LOP, the librarian as well as the user community, both the end face different practical problems.

This programme is a time bound one and in maximum cases it seems to be one-way interaction programme. As a result, the librarian used to deliver many new things to user community and they just listen without understanding as many new (irregular) terms are used in this process. The newly enrolled users especially the student- users do not ask cross-question to clear their doubts.

Moreover, if some students once miss their own scheduled programme, then they get less opportunity to join the same programme again. In the ICT based library

environment, the user may get trouble at tthe time of searching/ using some resources specially the e-resources like e-journals, e-books etc.

In college library, where only one professionally qualified person works, it become tougher for the librarian to take the LOP to all the students in the beginning of the session. The traditional form of LOP is a time consuming aspect.

Moreover the LOP is very demonstrative in nature, therefore providing such programme to a large group of user community at a same time is not fruitful in real sense.

The infrastructure of the library as well as the parent body is also another matter of consideration.For the temporary library member (user)s, the library cannot arrange LOP in regular interval. The medium of LOP in academic library of higher education institution is by and large English, these may sometime create problems for the student-users of oriental languages.

In the library of Open and Distance Learning (ODL) institutions, the students may be from different nook and corner of a state or a country and also they are not regular library user. The number of enrolled students is also higher than regular course. In such situation, the traditional LOP is a not possible in ODL institutions.

5. Technology based Library Orientation Programme for academic library:

The basic problems of LOP in traditional method are mentioned above. To overcome these problems, different technological tools are used in imparting LOP. Application of computer and computer aided LOP is not a new concept. Scott Rice and Margaret N. Gregor (2013) stated, "Computerized tours began to evolve as early as 1989. Librarians at the University of Houston, Central Missouri State University, and the University of Southern Colorado designed and evaluated computer assisted instruction (CAI) modules and tours. They concluded that CAI was an effective alternative to face-to-face library instruction and tours."

Evadne McLean and Stephen H. Dew (2006) talked about the use of the technology in two different universities where they stated, "In an ever-increasing number of situations, however, librarians are using the interactive capabilities of new technologies, especially the Web, television, and videoconferencing, to communicate simultaneously with students who can be located at many different sites."

The website of any organization including the library is the right place for quick access of authentic, official and update information regarding the organization. Besides

containing information about its parent body, library website generally contains the information about the library's resources both physical and digital, facilities, services rendered, rules & regulations . Therefore, academic library website can also be utilized for providing LOP. Remigiusz Sapa (2005) described one of the basic roles of website for academic library as ' Tool for educating library and information users '.

Now the trend of incorporating web-based library orientation programme has brought new challenges for the library as well as to the library professionals both. In designing the web based LOP, the professional must be required to provide access to quality and valid information to support on-line instruction as well as to provide on-line instruction both indirectly in the form of guides and also on-line tutorials in the form of courses to make the user information literate. A web-based LOP is very much helpful and time consuming process for librarian and user community.

The Trent University is one of the top universities in Canada, where the Library provides a web based LOP for new students. The importance of such programme is mentioned in its introduction part as, "Some students assume that if they need to use library resources, their course instructors will show them how. In fact, your instructors will assume you have learned it on your own. The library offers programs to help with this."

Fig 1: Trent University Library's Web-based LOP
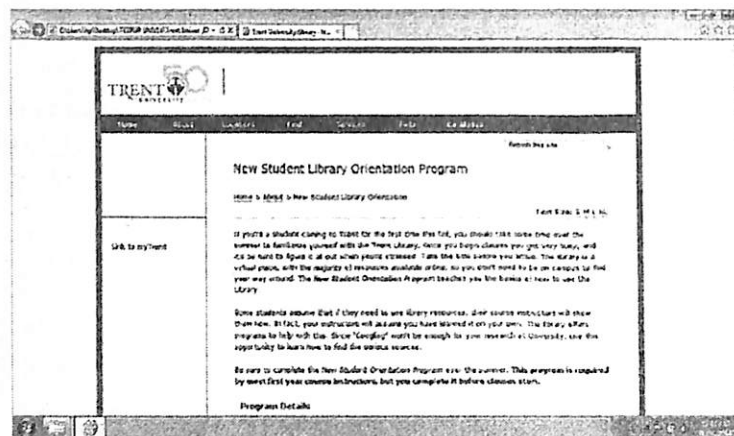
Singapore Institute of Management (SIM) is Singapore's largest institution. Its website provides a virtual tour of the library, where the new students and new members get an orientation to the library by viewing a video clip or the library floor plan. The SIM Library offers a wide variety of ways to familiarise themselves with the library and its collection, services and facilities.

Fig 2: SIM Library's Virtual tour

Many colleges and universities are recognizing the necessity of requiring an information literacy course as part of the curriculum in the digital age. In India too some academic libraries are using web-based orientation programme methods via various multimedia based files. Central Library of IIT Madras has uploaded virtual tour programme in their library website.

Fig 3: Virtual tour of Central Library IIT Madras
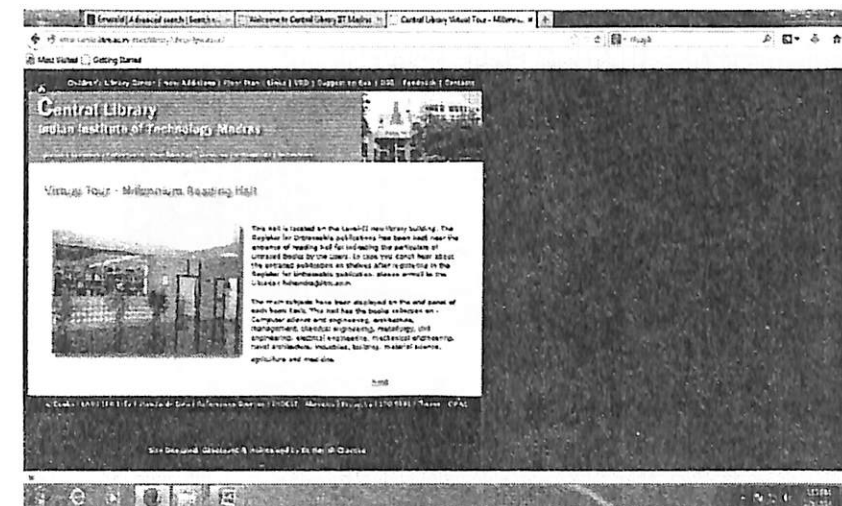
Amongst the IITs Central Library of IIT Madras is the only library to develop and upload virtual tour as a part of Library Orientation Programme.

5.1 Types of technology based LOP :

Some of the technology based LOP are identified which are found to be used by the library professionals to educate the users about the services and resources and how to use them most scientifically to satisfy their required information need.

5.1.1 Power point

Power point is a very simple and popular means of presentation. The Librarian can use power point presentation for designing the LOP for their user community. The Central Library of Central University of Rajasthan uses a power point presentation for the LOP. This presentation is available in its website i.e. http://www.curaj.ac.in/Default.aspx? PageId=90

Fig 4: Central Library of Central University of Rajasthan LOP in .ppt
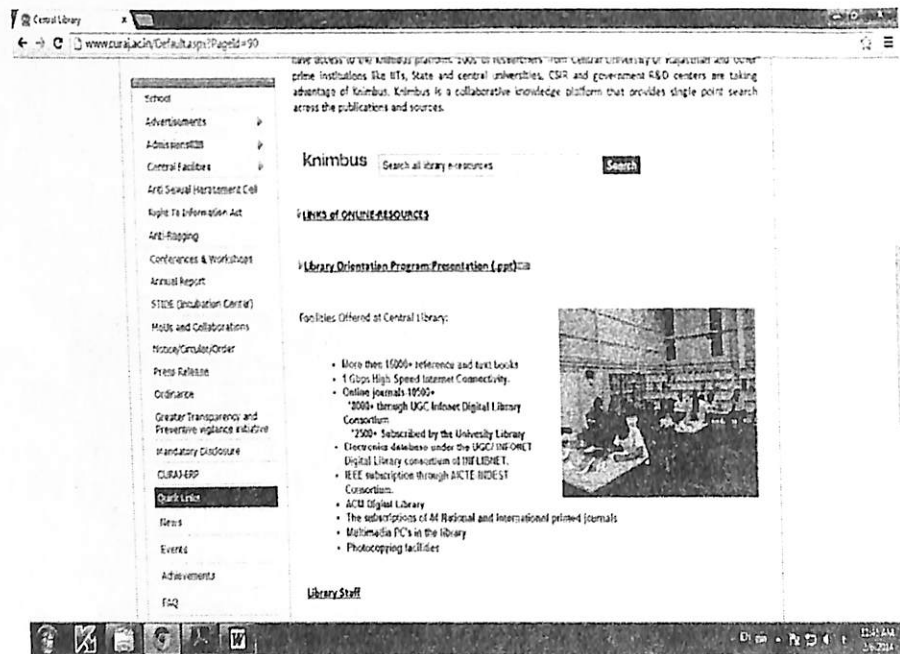
5.1.2 Document file : The library can use document file for instructing the user. The Jaypee University of Information Technology (JUIT), Solam, Himachal Pradesh has used .pdf file for user's instruction along with the .ppt file. These files are available online on its website <http://www.juit.ac.in/lrc/lrc_help.php.>

Fig 5: JUIT Library LOP in .pdf file
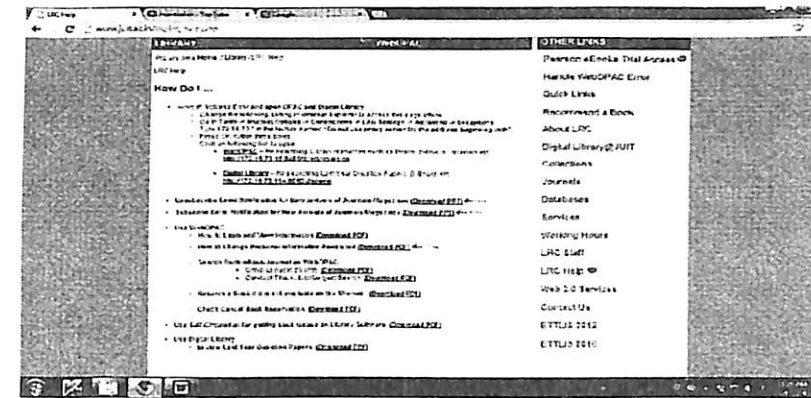
5.1.3 Video Clip : Video clip is another media that can be used for LOP. This is a very interesting and attractive way to provide library instruction to the users. The video clips uploading on YouTube become very popular. A numbers of LOP related video clips are available on YouTube. The JUIT has also used YouTube for instructing their library users. One can links these common videos via their library webpage.

Fig 6: JUIT Library YouTube videos for user education
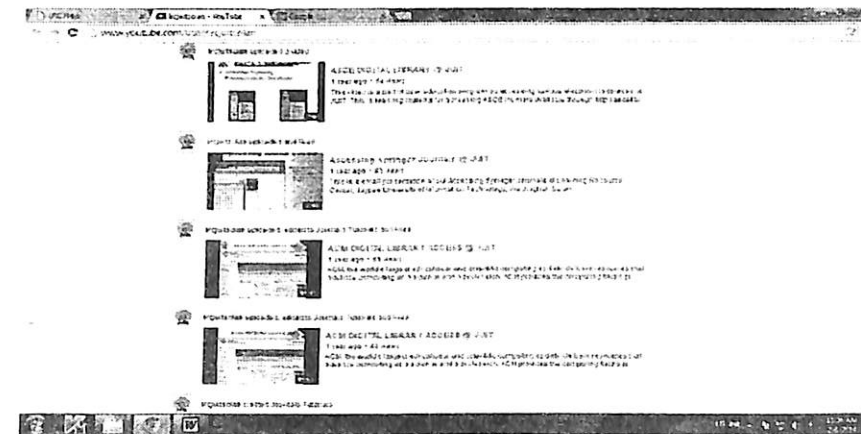
6. Technology based Library Orientation Programme for academic library: a plan

From the above discussion, it is revealed that the technology based LOP is a useful means for instructing the newly enrolled users which can make them informed about the library in detail. In India also some libraries use these facilities for their orientation programme.

Here a diagram for Web based Library Orientation Programme is drawn to show how the library instruction in various formats may be uploaded.

Fig 7: Technology based Library Orientation Programme for academic library

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                          Library Web Site
                                 ↓
                     Library Orientation Programme
                                 ↓

    Multimedia Based                    Document based

    Power Point Presentation            pdf (English/ Hindi)

    Video Clip                          doc (English/ Hindi)

    Image File

    Audio Clip
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7. Conclusion

A large portion of Indian population uses the Internet for communication, largely in the form of email, social media like Facebook, Twitter etc. Also, the audio clip of Library Orientation Programme can help the blind users of the library and information centres.

In a press release by the Internet and Mobile Association of India (IMAI) and IMRB the number of mobile internet users in India is expected to reach 213 million by June 2015.

According to the report, 'Mobile Internet in India 2014', released by the Internet & Mobile Association of India (IAMAI) and IMRB International there were 173 million mobile internet users in India in December, 2014.

Therefore, the library authority should take essential steps to develop web based Library Orientation Programme along with its mobile compatible version which will help more users rela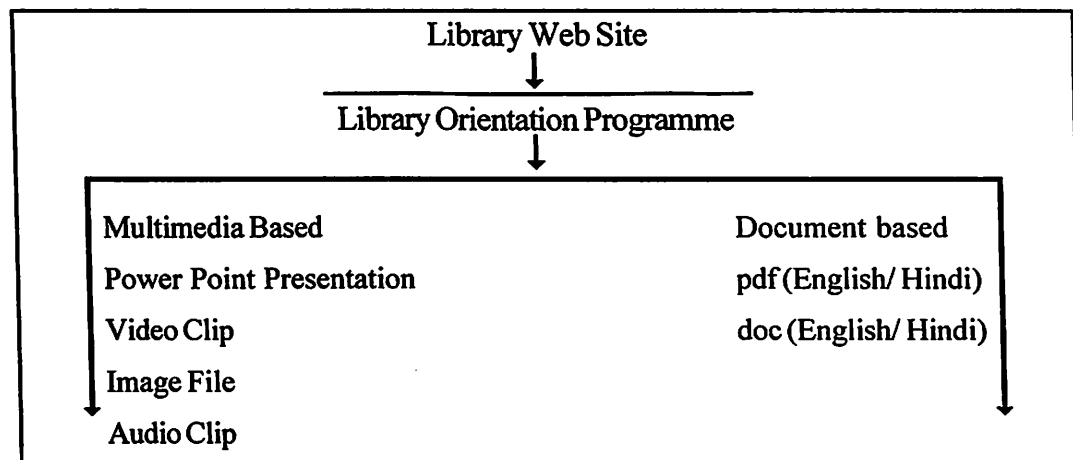tively. We can hope for emergence of Library Orientation Programme in future in the users' mobile handset. It will definitely help the next generation users to know about the resources and services of the library & information centres. No doubt, it is in the initial stage, but tomorrow it will be an essential aspect to develop web based Library Orientation Programme.

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Application of ICT and Related Manpower problems : A Study with Special Reference to three selected College Libraries of Golaghat District

Upasana Borchetia

Abstract

The advancement of science and technology has made a tremendous improvement in the lifestyle of the society today. It has affected almost all walks of life. Especially the magnetic words, information technology has been chanted in all corners of the global arena and incorporates in organisational, managerial, developmental and marketing sectors. The services rendered with the help of information communication technology are faster and more effective. This has made the library more user friendly and has increased the efficiency of library professionals. But the computerisation work of three selected college libraries of golaghat district is slow due to certain problems. Trained manpower is one of the major problems in those college libraries. This article examines the situation of ICT application and related manpower problems in three selected college libraries of golaghat district.

Keywords : IT, ICT, Manpower, College libraries

1. Introduction

An ideal college library with the advancement of information technology is becoming a hybrid library, a digital library or a virtual library. The future librarian may be designated as cyberian or cyber librarian, as he was to provide information service from a large number of documents published in digital form and available through internet where a significant number of documents are available free of cost. It may not be far away when a large number of students will demand computerized service from a college library. So libraries may think to reorient their activities with the help of information and communication technology.

"Intern at National Library, Kolkata" (MLISC)

The main problems of ICT application in libraries are funds, trained manpower and to some extent the negative attitude of authorities also. ICT has become essential for many reasons: for improved control over collections, for increased volume of library activities or overload, for improved control over operations, for improved quality services to users, user friendliness, regularity etc., as also to prevent duplication of efforts, for cooperation and shared utilisation of information. Although IT application in college libraries is no doubt a boan, its implementation is a most challenging job, especially in college libraries as they face a lot of constraints like shortage and personnel motivation.

This paper discusses several questions like, what is the present state of ICT application in the selected college libraries of Golaghat district, what kinds of problem do these libraries face, availability of skilled manpower, future plan of the libraries etc.

2. Objectives of the study

The objective of the study are :

2.1. The history of efforts in automating libraries in selected college libraries of golaghat district.

2.2. The infrastructure available in the libraries for smooth computerisation.

2.3. The areas of work automated.

2.4. The automated services being provided by the libraries.

2.5. To study the problems associated with the manpower in the use of ICT.

2.6. To provide suggestions for the development of manpower in the college library.

3. Methodology

Questionnaire and interview methods are used to collect necessary data from the librarians and the staff of the three selected college libraries of Golaghat district visited. Observation method is also adopted.

4. Areas of the study

The study covers three selected college libraries of golaghat district:

4.1. Debraj Roy College (D. R. College)

4.2. Dergaon Kamal Dowerah College (D. K. D. College)

4.3. Hemo Prava Boruah Girls' College (H. P. B. G. College)

5. Data analysis and interpretation :

5.1 Basic information about the colleges surveyed :

Three colleges under Golaghat district have been arranged chronologically by the year of establishment in table 1. The following table shows that the status of automation in all the visited college libraries is on partial stage. They have not deal with all housekeeping operations till now.

Table : 1 Colleges covered under the study

Sl. No.	Name of the College	Name of the library	Year of establishment	Status of automation
1.	D. K. D. College	Naren Sharmah Library	1962	Partially
2.	D. R. College	D. R. College Central Library	1942	Partially
3.	H. P. B girls' College	H.P.B.G college Library	1969	Partially

5.2 Library collection :

Library collection is the basic foundation for efficient services. Each library must have a good collection of both printed and elecctronic resources to fulfill the demands of the readers. So, enquiry has been made to know the total holdings of the libraries visited and the details of collections of the libraries are presented in the table below-

Table : 2 Total No. of records in database (Library Collection)

Sl. No.	Name of the Library	Printred resources		E-Books	Electronic resources		Web resources	Non book materials
		Books	Periodicals		E-Journals	Databasc		
1	N.S. Library	30,194	35	All under N-list programme	All under N-list programme	14	N-list	41
2	D.R College Central library	35,575	35	do	do	More than 10	N-list	nil
3	H.P.B.G College Library	18,00	35	do	do	More than 10	N-list	nil

From the above table it is clear that all these college libraries have sound book collection to meet the users' needs. But the collection of non-book materials is not satisfactory. All libraries are accessing e-resources through N-list programme.

5.3 Availability of different electronic tools in the libraries :

Table : 3 Number of Infrastructure available in the libraries

Sl. No.	Name of the College	Computer	Xerox	Computers connected to the internet	Pinter	Barcode reader
1	N. S. Library	14	1	11	2	3
2	D.R College Central Library	6	1	6	2	nil
3	H.P.B.G CollegeLibrary	6	1	1	nil	nil

Table 3 shows that the numbers of computer available in the libraries vary from two to fourteen. All the libraries had computers for computerising the library while two libraries were having printers. All three libraries had internet connection for providing online service to the users. But the H. P. B. G. College library is not able to provide a good number of infrastructural facility to the users. A good number of computers are connected to the internet in the N.S College library for the users. With it the N.S. library uses some computers for their professional software development and library automation process. All colleges have Xerox facility with the same time D. R. College library and H. P. B. G. College libraries are not able to provide barcode scanner facility that the users generally expect from them in this age of information technology. When asked to the librarians of the said colleges about the reason for that, all of them admitted that they are handicapped to switch over to computerization fully because of lack of infrastructural facilities and appropriate manpower.

5.4 Technological services available in the libraries :

Table: 4 ICT based library services

Sl. No.	ICT based library services and facilities	Name of the libraries		
		N.S.L	D.R.C.C.L	H.P.B.G.C.L
1	CD ROM searching	no	no	no
2	Online searching	yes	yes	no
3	Photocopying	yes	yes	yes
4	Online information services	yes	yes	no
5	News clipping scanning service	no	yes	no
6	Online reservation service	no	no	no
7	Database searching service	yes	yes	no
8	LAN facility	yes	yes	no

From the above table it is clear that though all the colleges are laying emphasis on automating their respective libraries, but the process is not yet completed. It is also cleared from the above table that all the libraries are able to give photocopying service to the users.

5.5 Areas of ICT application :

Table : 5 ICT based library activities

Sl. No.	Name of the library	Areas of ICT application						
		Budgeting	Office work	Acquisition	Catalouging	Circulation	Serial control	OPAC
1.	N. S Library	no	yes	no	yes	yes	no	yes
2.	D.R College central library	no	yes	no	yes	no	no	yes
3.	H.P.B.G College library	no	no	no	yes	no	no	yes

The above table shows that the status of automation in all the visited college libraries is on partial stage. It is known from the librarians that though the OPAC is open for all, but the use of this service is not yet satisfactory. No libraries had automated the function of serial control, budgeting and acquisition. It maybe concluded from the table that the computerisation work in the libraries was in the beginning stage.

5.6 History of library automation :

Automation is the primary step in the process of applying IT in libraries. So the history of library automation in the libraries under this study has been enquired.

Table: 6 History of ICT application and use of library software in the libraries

Sl. No.	Name of the College	Year of purchasing computers for the library	Year of acquisition of library software	Name of software	Use of year
1	N. S. Library	2005	2005	SOUL 1.0	2007
2	D.R College central library	2009	2010	SOUL 2.0	2013
3	H.P.B.G College Library	2009	2010	SOUL 2.0	2010

The above table reveals that college libraries introduced computers during 2005-2009. All three college libraries acquired library management software and started data entry work more or less in the same year of acquiring the computers. From the study it came to our notice that no college library of this study poses fully automated. But all of this partially automated. For their automation they use the SOUL software provided by INFLIBNET, Ahmedabad.

5.7 Total manpower of the libraries :

Table : 7 Total number of library staff

Sl. No.	Name of the College	Librarian	Assistant Librarian	Library assistant	Bearer	Other	Total
1	N. S. Library	1	nil	2	2	2	7
2	D.R College central library	1	1	1	2	nil	5
3	H.P.B.G College Library	1	nil	1	1	nil	5

From the above table shows that in all college libraries the total number of library staff is limited. The authorities of the colleges are trying to solve this problem by appointing additional staff on temporary basis at their own cost. But this is not a permanent solution of this problem. It may not be possible for all college libraries. From the above table it is evident that H. P. B. G. College library do not have supporting staff than the other two college libraries. Problem is that with limited staff, a library cannot function properly to the satisfaction of its clientele.

5.8 Present status of library staff :

No matter how excellent the resources of the libraries if the library staff are unable to convey from its resources the maximum information to the students and teachers, While it is absolutely necessary that the staff in college library should be properly trained and qualified.

Table : 8 Computer or technology literacy of the staff

Sl. No.	Name of the College	Librarian	Assistant Librarian	Library assistant	Bearer	Other	Total
1	N. S. Library	yes	-	yes	no	yes	3
2	D.R College central library	yes	no	yes	no	-	2
3	H.P.B.G College Library	yes	-	yes	no	-	1

From the above table it can be assumed that for lack of professionally supporting staff, the librarians facing problems in attempting the modern library services in their libraries to the satisfaction of its clientele.

5.9 Trainings for Library staff :

Training is necessary to improve performance, refresh knowledge and to know the latest technological developments in their subjects. Along with librarian, the other library staff also need timely and continuous updating of their knowledge and skills by participating in various training programmes, workshops etc. The following table shows the staff attendance in trainings, workshops etc. Especially in computer or IT related areas.

Table : 9 Attendance on training programmes, workshop etc especially on IT

Sl. No.	Name of the College	Librarian	Assistant Librarian	Library assistant	Bearer	Other	Total
1	N. S. Library	yes	-	yes	no	no	3
2	D.R College central library	yes	yes	no	no	-	2
3	H.P.B.G College Library	yes	-	no	no	-	1

The above table observed that the most of library staff are not join in such types of workshop/seminars till now, except librarian. The librarians of the said college libraries express their desire that some training programmes should be organised for the other staff of the library staff also, so that they can offer their helping hands to the librarians fully in the field of information technology application.

5.10 Impediments in library automation :

Table:10 Impediments in ICT application in library works

Sl. No.	ICT based library services and facilities	Name of the libraries		
		N.S. Library	D.R. College Central Library	H.P.B.G College Library
1	Financial problem	no	no	no
2	Lack of IT knowledge	yes	yes	no
3	Lack of interest in learning ICT	yes	yes	yes
4	Lack of in service promotional/ financial reward	yes	yes	no
5	Lack of sufficient staff in the library	no	yes	no
6	Lack of IT training facility	no	no	no
7	Existing library staff not cooperative	yes	yes	no

Library automation is an expensive, complex and continuous process involving various constraints faced in its implementation. To identify constraints faced by the college libraries of golghat district, respondants were offered seven problems to choose. Table 10 shows that all three libraries faced problem of financial constarints as well as lack of IT training facility to upgrade IT skill of staff.

6 Findings (problems and suggestions) :

In order to improve the standard of work of the libraries in terms of modernisation with specific emphasis on ICT application, the findings and suggestions may be taken into consideration so that the situation will improve and the libraries of golaghat district will be equally equipped with the counterparts of other states and districts. The following findings are based on the survey conducted and the observations made during various activitiees of the work after analyzing the data:

1. Lack of proper training of manpower development and absence of ICT education among the library staff.

2. Most of the libraries function with inadequate number of professional staff required for smooth functioning.

3. For various purposes databases are being used. However co-operation and coordination are lacking among the users and library professionals.

4. No library has computerized the records of periodicals.

5. Insufficient manpower, lack of IT skill among the library professionals and lack of right attitude of the authorities towards library development were some of the other problems observed in the libraries.

As such a heavy responsibility rests upon the librarian who is the manager, facilitator, advisor, consultant, instructor, evaluator, organizer, researcher, promoter, communicator and technological expert of the library. But it is not an easy task for a single librarian to maintain such a universe of knowledge. Yet he needs helping hands from other staff. So it becomes equally important to have competent, well equipped and up to date supporting staff in the libraries. In the light of the above discussions, the study proposes following suggestions for developing ICT application and manpower in the libraries:

1. Staff should be more responsive and helpful. Printing facility should be available in the library to get print out of the articles of e-journals and database.

2. Proper ICT training should be given to the library professionals of the library to improve the ICT skill of the professionals.

3. Job of the library professionals should be related and every professionals should be given the chance to work with ICT in libraries.

4. It suggested that in-house training be carried out for all levels of staff to get them acquainted with new software. Consultant or other experts in the field can be hired to organise training programmes.

5. Proper manpower planning policy should be adopted in the college libraries. The government should give serious attention on appointing maximum supporting staff in the libraries having professional and technical expertise

6. It is suggested to develop resource sharing services with networking facilities at local, regional, national and international level.

7. Library professionals at senior level should visit computerised libraries to have better idea of computerisation of library operation and services.

8. There should be proper guidelines to be prepared taking into consideration of the objective of the library, financial condition, users demand and possible use of modern technology principles be made for selecting right hardware and software for library operations in the context of the respective libraries of Golaghat district.

9. Seminars and conferences on ICT should be held at least once in a year to create awareness among the people.

7 Conclusion :

The professional library staff may be given ample opportunity to work independently, so that they can prove their worth in automating the college libraries. The libraries had neither proper IT trained manpower, nor were the authorities interested to make them trained by sending them to the reputed institutions. Since no opportunity was extended to the employees by the principals, the working library staff is languishing in their position. To improve the standard of work of the college libraries in terms of modernisation with specific emphasis on ICT applications, the above factors may be taken into consideration so that the situation may improve and the college libraries of Golaghat district may provide IT-enabled services to their students/users.

The attitude and skill of library professional can be developed positively by providing training them and conducting seminars and conference on the ICT application in the library. Trained manpower with ICT having positive attitude will ensure the development of libraries and information centres.

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Influence of IT on the Services of the Special Libraries of Upper Assam

Geetima Katakey

Abstract

The advent of ICT has spread technological literacy and given people all over the world fast access to vast resources. The use of ICT is directly affecting people in many areas including library and Information Centres where it heralds the development and implementation of new and innovative strategies. Scholars can communicate with each other as well as access news groups, library catalogues, bibliographic databases and other required resources. These resources are vast and their dissemination is important for the future developments of more advanced technologies. Therefore, it is the job of the library professionals to organize this universe of knowledge and provide services more appropriately with the help of the new technology.

Keywords

Information and communication technology, Internet, Virtual Reference Desk

1. Introduction:

Libraries and Information Centre's have been acknowledge as an indispensable organisation to nourish the academicians, specialists, scientists, research scholars, students, and society at large with required information. So, to cope up with the altering environment, the Libraries along with the Information Centre's adopted the means of accumulating information in electronic form using various means with the help of Information Technology, which has emerged as a vehicle of rapid change in the growth of a society. The special libraries has also not lacked behind in this venture. As the readers of the special libraries are mostly designated towards the development or study of a particular branch of knowledge, it is most important for them to accumulate themselves with the latest occurrences of that specific field. This has become possible with the advent of Internet. In the special libraries the impact of Internet is vast as the

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users are the researchers, scientists, business personnel's who are constantly craving for up-to-date information. This is why the special librarian. the information professionals provide them services which can keep them breast of the new developments of their current research. With the influence of Information Technology the services of special libraries can also be provided electronically and also with the advent of Internet various new services have come into surface. Below are some of the descriptions of electronic based services followed by Internet based services:

1.1 Electronic-Based Services :

1.1.1 Current Awareness Services (CAS) :

CAS provides information about recently published articles to the users of special libraries. CAS appears in various forms such as title announcement, content list, indexing and abstracting services, digests, etc. The information bulletin is one of the popular forms of CAS adopted by mainly the special libraries and also academic libraries.. A bulletin may be a printed list or a set of list for consultation on a VDU (Visual Display Unit) in case of online system which is published and disseminated among a number of users on a specific subject area.

1.1.2 Selective Dissemination of Information (SDI) :

SDI is a method of supplying each user or a group of users of the special libraries with the references of documents or abstracts relating to their predefined interest, selected from documents published recently or received. In the electronic version of SDI the library's in house collections are made into a database, the users are connected through the library's network and they are given updates about the recent literature of the library through e-mails.

1.1.3 Printed Indexes :

One of the first applications of the computer to information retrieval was the production of printed indexes. Computers were used, both for the preparation of in-house indexes to reports, local abstracting and indexing bulletins, patent lists, etc., and also for the production of indexes for the major abstracting journals like Chemical Abstracts, Biological Abstracts, etc. There are different types of computer index produced. One of them is keyword based indexes which includes: KWIC (Keyword in Context), KWOC (Keyword Out of Context), and KWAC (Keyword Augmented in Context).

1.2. Internet-Based Services :

1.2.1 E-books :

Locating of relevant information in a timely manner is critical for both the researcher and the information professional. Electronic books (e-books) are one way to enhance the digital library with access to authoritative information and they also enable users to access specific research material quickly, easily and effectively. As an e-book provider, netLibrary, a division of Online Computer Library Center (OCLC), has been involved in the selection, cataloguing, and distribution of e-books. Library users are able to remotely search, locate and check out e-books from the library's OPACs (Online Public Access Catalogue).

1.2.2 Virtual Reference Desk (VRD) :

The Virtual Reference Desk (VRD) is a project dedicated to the advancement of digital reference and the successful creation and operation Internet-based information services. VRD is sponsored by the United States Department of Education. The VRD project co-ordinates a collaborative Internet-based question-and-answer-service. This service provides support to Ask-an-Expert or AskA (similar with AskA Librarian) services by accepting questions asked by users. This service can be broken down into two types viz., email and chat reference.

1.2.3 Web-Based User Education :

Web guides and teaching tools are found everywhere on the Web because they are easily updated, accessed, and printed on demand. The web-based user education provides a high degree of interactivity and flexibility to the users. The library web sites can use web-based user education for imparting training to users in teaching the basic library skills along with glossary of library terms, using Library OPAC, locating books, magazines, biographical data and other library materials, understanding how to navigate the libraries website and how to select the most relevant database.

2. Aims and Objectives of the Study :

The aims and objectives of the study are mentioned as follows:

i. To study the means of providing telecommunication networks in the libraries.

ii. To evaluate the popularity of Internet usage among the user's of special libraries.

iii. To analyse the impact of Internet to attain the goals of the Information Centre in providing information.

iv. To find out the different aspects of the libraries services in which Internet can be effectively applied.

3. Area of the Study :

For the area for my dissertation topic, I have chosen the Special Libraries of Dibrugarh and Jorhat districts of Upper Assam. Although there are quite a few special libraries of Research and Development in Upper Assam, I could not visit all these libraries because they are not equipped with Internet services. Therefore, I have chosen the following libraries which I have found that are compatible with my study:

i. Rev. B. M. Pugh. Library, Assam Agriculture University (AAU), Jorhat.

ii. Assam Medical College Central Library (AMCH), Dibrugarh.

iii. Jorhat Medical College Library, Jorhat (JMC)

iv. Knowledge Resource Center, North East Institute of Science and Technology (NEIST), Jorhat

v. Rain Forest Research Institute Library, Rain Forest Research Institute (RFRI), Jorhat.

4. Methodology :

The methodology that I have applied to conduct the study on my dissertation topic are :

i. Questionnaire

ii. Interview process

iii. Observation method

5. Data Analysis and Interpretation :

The analysis of data and interpretation is done from the above mentioned five special libraries. The questionnaires were distributed to the librarians and users of the libraries. Each library was given 20 questionnaires for users. The data collected through these questionnaires and interview is tabulated and then analyzed for results.

The data is represented in percentage since the population considered is very small. The method applied for calculation is-

5.1. Use of Telecommunications Networks :

Table i: Use of telecommunications networks

Sl. No.	Networks	AAU	AMCH	JMC	NEIS	RFRI
a)	LAN	√	√	√	√	
b)	WAN					√
c)	MAN					

The above table no.1 shows the preference of network of the surveyed libraries. It is seen that most of the libraries are using the LAN (Local Area Networks) except for RFRI, which has WAN (Wide Area Networks). The WAN network system provides ability for hosts at geographically scattered sites to communicate with each other; this is why the RFRI uses WAN and not LAN. As MAN covers geographically large areas, it is not used in any of the above libraries because LAN covers all of the required area of the libraries.

5.2. Provision of Internet Connectivity :

Table ii : Provision of Internet Connectivity

Sl. No.	Connectivity	AAU	AMCH	JMC	NEIST	RFRI
a)	Broadband					
b)	Dial-up		√			
c)	Lease-line				√	
d)	NKN	√				√
e)	ERNET					
f)	Other	√	√			

From the above table no.2, it can be inferred, that in AAU and RFRI connectivity is provided by the NKN (National Knowledge Network).AMCH central library has dial-up connections and is connected by Wi-Fi which is available throughout

the whole campus. In JMC, the connections are provided by NIC (National Information Centre). NEIST library has Leased-line connections. Moreover, all of the libraries mentioned above provide Wi-Fi connectivity across campus to its users.

The figures in the tables indicates %

5.3. Search Engines Mostly Used :

Table iii : Search Engines Mostly Used

Sl. No.	Search Engines	AAU	AMCH	JMC	NEIST	RFRI
i.	Google	80	90	100	100	100
ii.	Alta Vista	-	-	-	-	-
iii.	Ask.com	-	10	-	-	-
iv.	Yahoo	20	-	-	-	-
v.	Lycos	-	-	-	-	-

To access the Internet users need an intermediary, like a search engine. There are various types of these. From the above table it can be inferred that in the AAU library 80% of the users browse using Google. 90% of the users of AMCH library browse using Google. In JMC, NEIST, RFRI libraries all of the users use Google. Google being the most common search engine, the users use this more frequently as it's easy to use also. Yahoo and Ask.com also has a significant amount of use in AAU.

5.4. Internet Services :

Table iv : Internet Services

Sl. No.	Services	AAU	AMCH	JMC	NEIST	RFRI
i.	Serials/Theses online	√	-	-	-	-
ii.	Google scholar	√	√	√	√	√
iii.	Wikipedia	√	√	√	√	√
iv.	Email	√	√	√	√	√
v.	RSS	√		√		

In the above table the services provided by the Internet in the libraries to its users are mentioned. Of all the surveyed libraries the users can access various Serials/ Theses onlineof the institution and also from the e-publishers that the library subscribes to.Google scholar and Wikipedia is used by all the library users as the former provides indexes of full text scholarly literature and books and journals, and the latter is a free online encyclopedia that provides description on articles on the most recent topics. RSS (Rich Site Summary) are standard web feeds that publish recent information that includes full or summarized texts it is provided by AAU and JMC.

5.5. Membership in Information Networks :

Table v : Membership in Information Networks

Sl. No.	Search Engines	AAU	AMCH	JMC	NEIST	RFRI
i.	INFLIBNET					
ii.	NICNET					√
iii.	AICTE-INDEST					
iv.	ERNET	√			√	
v.	ICAR NET	√				

From the above table it can be seen that AAU library is member with ERNET and ICAR NET (Indian council of Agricultural Research Network) both. AMCH and JMC central library both do not have membership in any of the mentioned information networks. Without any membership they would be lagging in the different types of information and new developments taking place in the research work that these networks provide update about. NEIST library has its membership in ERNET (Educational and Research Network) which is a network of Educational and Research Institutes in India. RFRI library are members in NICNET (National Informatics Network) which is the world's largest satellite based computer communication network set up by the Government of India in 1977.

6.   Findings :

Some of the questions of the questionnaires given to the librarians and users that could not be shown through tabulationare described below:

i.   Computer and Internet connection: It's important for the entire research libraries at the present age to possess computer and Internet facility to cater

to its clientele's needs. All of the surveyed libraries, AAU, AMCH, JMC, NEIST, and RFRI possess computer and Internet connection.

ii. Upgraded software: The AAU, JMC, NEIST libraries has upgraded software versions. In RFRI the software is not upgraded as it has plans of acquiring new software. In AMCH library the work is still done manually. It is lagging behind in the use of ICT due to which their work won't be as fast and efficient as other libraries.

iii. Funds from the administration for providing Internet services: All of the libraries surveyed receive funds from its administration.

iv. Benefits from Internet access: The librarians of the following surveyed libraries stated as follows :

- AAU: Users can access their information through Internet and e-resources easily at the same time.

- JMC: It brings up-to-date information.

- NEIST: 80% of the resources are online. Therefore users depend on Internet facility more.

v. Influence of Internet in academic efficiency: Most of the users of the libraries stated that the use of Internet has accelerated the research process and professional competence has increased.

vi. Satisfaction with the Internet service: The library users of AMCH were 50% satisfied with Internet service provided. The users of library JMC were 25%-50% satisfied with the service. The users of AAU, NEIST, and RFRI were 50%-75% satisfied with the Internet service provided.

Suggestions :

i. The staff of the special libraries surveyed should consist of more professional personnel's as they have the knowledge of disseminating the right kind of information to the right user.

ii. The special libraries surveyed should give importance to the collection of e-resources and in providing in-house database online for its users.

iii. There must be a virtual reference desk in the website so that the users can ask any queries to the librarian. The users who are geographically distant from the library are benefitted from this service.

iv. The libraries should have its own institutional repository so that the other libraries can also acquire information about its various published scholarly articles.

Conclusion :

In this research study on the various Internet-based services provided to its users, I have found out thatthe standards for organizing web-based resources are still in the early stages of development, and librarians are forced to utilize standards for print resources that were not designed for electronic resources. AAU andNEIST library is mostly equipped with the present technology than the others. AMCH, JMC and RFRI librariesare computerized partially and in the near future they are planning to fully digitise it.

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Library Networking : An Application of ICT

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Abstract

The study briefly highlights some of the major library networks in India and depicting networking as a strong ICT application for better library service. In library network the particular focus is forming online networks by using computers and linking members to the computer resources by means of telecommunication connections. When a group of libraries using computers decide to exchange information, a network is developed. Library networking is an arrangement or a structure that links a group of libraries which have agreed to work together and share their resources in an organized basis to a certain degree. It is a strong ICT enabled application tool. It can be defined as a "two or more libraries engaged in a common pattern of information exchange through communication for some functional purposes". It is meant to promote and facilitate sharing of resources available within a group of participating libraries.

Introduction

The 21st Century has clearly shown that information provides unforeseen opportunities that enable multifaceted growth and development. Nobody can deny that the deployment of Information technologies have profoundly altered not only the way we live and work but also our reading fundamentally altering and redefining our outlook about information and its modes of dissemination. It is pertinent to underscore that learning is not merely information transmission. Experiences, the world over, have indicated the positive changes that information technology can have in providing services that ameliorate the conditions of the under privileged. It is increasingly felt that deploying the right technologies can go a long way in creating, nurturing human and social capital. Expanding knowledge has positive cascading effect by improving productivity, competitiveness, wealth and prosperity apart from improving the quality of services

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and their delivery systems. Information professionals who would be the leaders in the twenty-first century depend on information for their work. Access to information holds the key to development. Libraries which are store houses of knowledge and information, and information centers which disseminate knowledge and information, form two important components of present day society. In India, the need for resource sharing has been well recognized but the technology options available until now were limited. NISSAT has taken up networking of libraries in Calcutta (CALIBNET), Delhi (DELNET), Madras (MALIBNET), Mysore (MYLIBNET), Hyderabad (HYLIBNET), Ahmedabad (ADNET), Pune (PUNENET), and Bombay (BONET). The present study highlights only some of the major library networks in India. Towards library networking activities in India NISSAT has taken the initiative for promoting resource sharing activities. These initiatives are aimed at ensuring better utilization of science and technology information resources, minimization of functional load of information centers and encouragement of motivational factors to a large extent by better means of communication. NISSAT only goes to the extent of setting up general infrastructural facilities like network service centers including hardware, software, manpower and other organizational requirements, communication facilities etc.

DEFINITION OF LIBRARY NETWORKING

The National Commission on Libraries and Information Science (NCLIS) in its National Programme Document (1975) defines a network as: "two or more libraries engaged in a common pattern of information exchange, through communications, for some functional purpose. UNISIST II working document defines information networks as " a set of inter-related information systems associated with communication facilities, which are cooperating through more or less formal agreements on order to implement information handling operation to offer better services to the users.

OBJECTIVES OF LIBRARY NETWORKING

1. To generate new services and to improve the efficiency of existing areas.

2. To improve the efficiency of housekeeping operations

3. To promote and support adoption of standard in library operation

4. To coordinate with other regional, national & international network for exchange of information and documents.

PREREQUISITE FOR NETWORKING

The agreements between library authorities of different libraries, building or developing required infrastructure, maintenance of standardization in terms of classification schemes, cataloguing schemes, and uses of some common library management software and so on are some of the preconditions before developing any kind of network. Some other prerequisites are -

1. Automation of the Member Library

For the success of network in the long run, each of the member libraries must have a policy to automate every function of the library - acquisition, cataloguing, classification, serials control, circulation, SDI, current awareness services, etc. - in the shortest possible time. This helps the library to have a computer environment which is required to design, develop, maintain and to operate several databases, to reduce the cost of library operations as well as network operations.

2. Hardware and Software

The network should be able to recommend to participating libraries the type of hardware and software they need for their in-house functions and for networking purposes. Hardware should be selected considering the number of entries the participating libraries can generate within the next 3-5 years.

3. Standardization

For the purpose of creating databases, it is essential to agree upon a standard. All libraries should follow a standard MARC format, AACR-II, a standard thesaurus like Library of Congress Subject Headings (LCSH), etc. uniformly. Although efforts should be made to have one classification scheme for all participating libraries yet the use of different numbers should not become a hurdle as search requests are mostly about authors, titles, editors and subject descriptions. Besides the above, it is preferable to have certain communication facilities such as Fax, Telex, Telephone, etc. as a part of the network system in each of the member libraries for the effective working of the network. E-mail and internet facilities should be available with the libraries and they should be able to access international databases, preferably individually or through the network host to begin with.

4. Trained Manpower

If there is no adequate trained manpower in each of the member libraries, attempts should be made to train or/and recruit new skilled library personnel.

ADVANTAGES OF NETWORKING

The advantages of library networking are as follows:

1. Development of Database

Library network helps in developing special database to meet some special need by the participatory libraries. Again, through networking the local information which is available over the network can be controlled locally that satisfies the accuracy. For example, National Union Catalogue of Scientific Serial in India (1988) was the result of the work of INSDOC in collaboration with several scientific libraries all over India.

2. Document Delivery Service (DDS)

Networks enable librarians, faced with clients' information needs beyond their local resources, to identify and obtain materials and services for those clients. The interlibrary loan, Document Delivery Service (DDS) provides the user the required documents irrespective of its location.

3. Sharing of Hardware Resources

Expensive computer equipment, microfilming equipment, digitizing devices for newspaper, reprographic systems, etc. can be procured by a networking group for the benefit of all the libraries of the network. Networking is also needed to connect personal computer with the mainframe or super computer for problem solving.

4. Sharing of Software Resources:

The software that is too expensive to procure by individual libraries can be procured and shared by the network for solving larger programmes, information retrieval, and so on. The software can be installed in the central computer and all other computers can be used as client.

5. Development of Union Catalogue

Network helps in developing union catalogue to refer the user to the documents in any of the other participating libraries and it can be consulted by the user in order to

know which document is available in which library. For example, Union Catalogue of Social Science Serials was compiled and published by the NASSDOC (ICSSR), New Delhi in 1980s.

6. Cooperative Collection Development

In the age of information explosion no individual library, however resourceful, can be self-sufficient in terms of documents. For a library, however rich it may be impossible to acquire and store all the documents within its four walls. Networking will help to develop collection in terms of books, periodicals, patents, standards, audio visual, CDs, etc. and share those resources.

7. Meets Specialized User Demand

User needs are varied and diversified. To meet the specialized need one has to approach such special collection or special service that are available in special libraries. Networking will help in the sharing of experience and expertise of the library personnel.

8. Reduces Unnecessary Duplication of Work

The networking will remove the efforts in duplication of classification, cataloguing, and such others.

INITIATIVES IN THE DEVELOPMENT OF LIBRARY NETWORK IN INDIA

At international level Joint Academic Network (JANET), Online Computer Library Centre (OCLC), etc. are functioning properly. The examples of library networks in the western countries suggest that all networks based on a fee structure can be maintained without grant and are viable in the long run.

NICNET, established by National Informatics Centre (NIC) in 1977 was started in the late 1987's. It is one of the largest VSAT Networks of its kind in the world. It was launched basically for getting and providing information from/to district levels to facilitate planning process. It links for regional nodes at Delhi, Pune Bhubneswar and Hyderabad and has established 32 nodes at state and union territory levels and 439 nodes at district headquarters.

At national level INDONET is India's first data communication and computer network that was started in March 1986 by CMC Ltd. It was launched as a solution to the growing need for providing timely, well processed data to various institutions. In the First phase, they have mainly network in Mumbai, Calcutta and Chennai. Later, Delhi and Hyderabad were also linked as additional stations. INDONET presently has an international gateway which provides access to the world wide pocket switched networks like USA's Global Networks Systems (GNS) and Internet.

Education and Research Network (ERNET) was launched by the Department of Education (DOE), Govt. of India in late 1986 with financial assistance from United Nationals Development Programme (UNDP) to provide academic and research institutions with electronic mail facilities. It is currently used by DSIR Labs, research centers and academic institutions.

Scientific and Industrial Research Network (SIRNET) was established by INSDOC in late 1989 to interconnect all the CSIR laboratories and other R&D institutions in India.

The success of the above networks and the initiatives taken by NISSAT, UGC, Planning Commission and other departments of Govt. of India have led to the establishment and development of library networks in India.

CALIBNET was established by NISSAT in 1986 in Calcutta. It was the first library network visualized. At present, it has become the centre for CD-ROM databases which are acquired from outside sources. DELNET was established in 1988 in Delhi by India International Centre with the initial financial support of NISSAT. It is the first operational library network in India. INFLIBNET was established by UGC in 1988 and its operations began in 1991. It is a network of university and college libraries. MALIBNET is the result of the need for interconnecting libraries and information centres in Chennai, which was visualized by INSDOC in 1991. INSDOC undertook a feasibility study which was completed in March 1992. MALIBNET was registered as a society in Chennai in Feb. 1993. Some other library networks in India are PUNENET (1992) in Pune, ADINET (1993) in Ahmedabad, BONET (1994) in Mumbai, MYLIBNET (1994) in Mysore (Chennai), and BALNET (1995) in Bangalore.

CONCLUSION

The library network deals with the development of software for library automation, automation of the member libraries, retro-conversion of records, cooperative acquisition, creating union catalogue, development of database of the

holdings in member libraries, conducting training, workshops and seminar, providing DDS, Email, CD-ROM, internet access facilities. It also provides reference service, referral service, and provides technical support to member institutions in the selection of hardware, software, and technical problem faced by the member libraries. According to Allen Kent "the success and survival of libraries will much depend on how much and to what extent the libraries cooperate with each other in future". Further, tremendous explosion of information, financial constraints, information in different forms, etc., compelling the libraries to form network and consortia is an essential facet of modern library practices.

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ICT Application in Selected Public Libraries of Sivasagar District : A Study

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1. Introduction :

During the last fifty years, Information Communication Technology (ICT) brought a revolution in different field of our society, like education, industries, communication, defence etc. In present context the application of ICT in libraries has not only observed remarkable changes in their d services. The application of ICT are used in the libraries for information processing, storage, communication, dissemination of information, automation etc. So, the application of ICT in libraries facilitates speedy library operations, services, and access to and delivery of information.

In general, ICT plays a very important in academic, special as well as public libraries in the develop country. But in case of developing countries, like India the impact of ICT is slow in the public libraries compare to other types of libraries. So the public libraries in India are not able to provide sufficient library services to its users.

2. Objectives :

The major objectives of this study are as follows:

2.1   To study the impact of ICT application in public libraries.

2.2   To find out and analyze the problems faced in providing ICT application by the public libraries.

2.3   To study about the attempts towards the enhancement of application of ICT in public libraries.

2.4   To find out the satisfaction level of users in the automated public libraries.

3. Methodology :

The present study utilizes both primary and secondary data.

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3.1 Primary data have been collected from the librarian and library staff of public libraries in Sivasagar through using questionnaire, observation and interview method.

3.2 Secondary data have been collected from books, journals and internet.

4. Application of ICT in the Public Libraries of Assam special reference with Sivasagar District :

In Assam under the banner Sadou Asom Puthibharal Sangha, the public library movement was grown from the year 1938. In the year 1954, under the scheme educational development, Government of India, the public library services come under the government of Assam.

In Assam most of the libraries, specially academic libraries used computer technology (ICT). But with compare to the academic libraries of Assam less number of public libraries uses computer technology. The lack of proper plan and insufficient fund of Directorate of Library services of Assam, the computer technology in Assam public libraries are not so much implemented.

Central library of Kolkata provides KOHA software to different public library in Assam. Due to the negligence of librarian it is not implemented in some public libraries.

5. Analysis and Interpretation of Data :

The data of the surveyed public libraries of Sivasagar District are analyzed with the help of the tables-

Table-1.1: Information of surveyed public libraries

Sl. No.	Name of the college Name of the library	Year of estd.	Total user per day
1	Sivasagar District Library	1968	198
2	Soraidaw Public Library	1989	30
3	Nazira Regional Library	1997	15

Table-1.1, gives a clear picture about the total number of user (per day). It is seen that the number of user (per day) is in the library of Sivasagar District Library is greater than other four surveyed libraries. It also seen that the other three district libraries have not sufficient number of user, which is a good sign for the libraries. It is finding from the study that only Sivaagar District Library is able attract the library.

Table-1.2 ICT resources in the surveyed public libraries

ICT Resources	Sivasagar District library	Soraidaw Public Library	Nazira Regional Library
Computer	8	3	None
Computer connected to internet	None	None	None
CD ROM	None	None	None
Printer	5	1	None
Photocopier	1	1	None

From the table-1.2 it is clear that some public libraries use ICT resources. From the survey it is find that Sivsagar District Library have eight computers, One photocopier and five printer and Soraidaw Public Library has three computer, one photocopier and printer. But the Nazira Regional Library has not any ICT resources.

Table: 1.3-Activities of ICT in libraries

Activities	Sivasagar District library	Soraidaw Public Library	Nazira Regional Library
Data processing	None	None	None
Circulation	None	None	None
Cataloguing	None	None	None
Bibliography	None	None	None
Serial Control	None	None	Non

It is finding from the survey that though some libraries of Sivasagar District used computer technology but it is not implemented for library activities. This library is still working in data entry process in the KOHA software.

6. Findings :

In every research study finding and recommendation are essential part. The findings are given by investigator on the basis of his survey. The investigator has to explain different limitations of surveyed fields through which the solution of the problem

can be made out. After explaining the finding on that particular field, the investigator has give recommendation regard to the problem.

On the basis of study undertaken to fulfill the objective of study during the whole period following are the finding drown upon:

i) The users of the selected public libraries have not sufficient number of users excluding Sivasagar District Library.

ii) Among the all surveyed college libraries nature of provide open access.

iii) It is found from the analysis that the all surveyed college libraries are not automated.

iv) In the all surveyed public libraries are used ICT resources except Nazira Regional Library.

v) The ICT facilities are not fully applied in library activities. Only Sivasagar District Library has been working on data entry of books.

7. Suggestion

On the basis of the study and analysis and interpretation of the data collected by the investigator tried to forward the following recommendation in the form of suggestion to overcome and remedy the pitfalls. The investigator is hopeful that if these suggestions are tried to follow or carried out by the concern authorities, a satisfactory library service could be extended to the fresh students. From the analysis of entire investigation finding reach the following suggestions :

i) The Central and State government should make some policies and give enough found to help those public libraries in adopting ICT facilities.

ii) The Library Association should also take some initial steps to provide the ICT.

iii) The librarians also give interest and try their best to implement the different policy of government in adopting ICT facilities in their libraries.

8. Conclusion

The Public libraries in Sivasagar District are not partially automated. They are practicing the old method of library services which is not acceptable in the present day

context. The trend of library services in modern days have taken its new course with the introduction of information and communication technology (ICT) in the field of library and information services but some public libraries are in the same condition. The Central government should take the responsibility for the adopting ICT application in public libraries in Assam.

At last it can be said that such study helps in finding advantage and disadvantage of ICT application in public libraries and also helps to find out different solutions regarding to the problems face by the libraries and library professionals. The data or information which had been selected from the surveyed public libraries helps to find out use of ICT application in the public libraries special reference with Sivasagar District.

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Web-based Library Services at IITs : A Study

Nirmali Chakraborty

Abstract

The study aims to highlight the existing web based services proving by IITs. The present study is limited to four IITs from four zones of the country. For the study the select institutions were physically visited and a self administered questionnaire was distributed among the senior library professionals. The performance of web-based library services at IITs is quite satisfactory. Findings show that IIT libraries are exploiting full potential of the web and develop the web-based library services for their users. Ofcourse, few of the web2.0 tools like blog, wikis are yet to implement in library services.

Keywords : *Web based services, Web 2.0, IITs.*

1. Introduction

Technology has a great impact on our day-to-day life. Library is being a part of our life and backbone of the society we cannot imagine a library without technology. In modern world library services are fully influenced by information technology. The information services are operating in an era of continuously changing environment of technology and social changes, presenting new opportunities, challenges and issues for libraries and information centres. Current information environment is blown with Google, Amazon, Wikipedia etc which could raise the challenges before the library services. To face these challenges, web based services offer libraries many opportunities to serve their patrons and to reach out beyond the walls.

Web-based Library Services

The growth of World Wide Web also known as web has been one of the most remarkable development in the history of documentation. Web-based services go beyond the functionality of simple web pages. It provides dynamic application functionality over a network that can be remotely invoked. The goal of web services is to be interoperable building blocks for constructing applications. Web technologies

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offer much potential and new capability for sharing information among different library and information centres at local, regional, national and international levels and eliminate the size, distance, and language barriers among users through resource sharing. Following are few of the web-based library services described briefly -

Access to Online Database

Databases are collections of records in machine-readable form that are made available for searching from remote computer terminals. Several publishers today offer web-based solutions for providing access to their databases.

Virtual Reference Desk/Ask-A-Librarian

This service provides support to reference services. Ask-A-Librarian services are internet-based question and answer service that connects users with library personnel who possess specialised knowledge.

Electronic Current Awareness Services (E-CAS)

E-CAS means implementing the CAS electronically, using the Email facility. E-CAS makes the information about new arrival of documents.

Electronic SDI Service

SDI service based on profiles that describe the users' information needs. Through this service the profiles of users are searched in a batch mode on the latest updates on a monthly basis and the result are e-mailed to respective users.

Electronic Document Delivery Service/ILL

In this service, users may order documents by mail, fax and electronic mail or in real-time from computer terminals. Documents are also delivered by mail, fax and electronic mail or also online.

Bulletin Board Services

A bulletin board is an electronic communication forum that hosts posted messages and articles connected to a common subject, theme or interest. It allows users to call in and either leaves or retrieves messages. The messages may be directed to all users of the bulletin board or only to particular users.

Virtual Library Tours

Websites of libraries provides virtual library guide to the physical facilities including collections, services and infrastructure available in the library. The combination of library maps and floor plans, library departments and photographic views are used for the tour.

News Clipping Services

To provide this service, news items from selected news papers are first marked and then the clippings are pasted on a white sheet. After that these are scanned and stored. Then these filed clippings can be circulated among the users.

Web OPAC

Online public access catalogue (OPAC), when made available on the web is called Web OPAC. It is a web based search platform. Regardless of physical location, web OPAC brings information at the fingertips of members, whether the member is in the library or at a remote location.

Frequently Asked Questions (FAQ)

FAQ is an online document that poses a series of common questions and answers on a specific topic. This web feature is widely used by libraries and popular among user community.

Services through Library Portal

Library portal can be used as a single interface to provide the web based library services. It provides an opportunity to the library to propagate its services and facilities to the academic community worldwide.

Listservs

A listserv is a mailing list program wherein a group of people with common interest is connected by e-mail. Any mail sent to the listserv is distributed to all those who have signed up for the list.

Discussion Forums

Discussion forums allow open exchange of messages on a topic of common interest. They allow users to initiate a discussion on new topic, replying to an ongoing discussion etc.

Web 2.0

Web 2.0, simply the second generation of World Wide Web (WWW), facilitates online collaboration and sharing among users. It provides a space that allows anyone to create and share information online - a space for collaboration, conversation, and interaction; a space that is highly dynamic, flexible, and adaptable. In Web 2.0 environment large numbers of users are creating content using a seemingly ever-increasing variety of tools and devices and this content is made available via a wide variety of commercial Web 2.0 services like blogs, wikis, and social networking sites (Kelly et al., 2009). These Web 2.0 tools and services foster new modes of connectivity, communication, collaboration, sharing of information, content development and social organization (Hangsing & Sinate, 2012).

2. Objectives of the Study

The prime objective of this study is to find out the web based library services available at IITs.

3. Methodology

The methodology of the study consists of survey method and questionnaire method. A self administered questionnaire was distributed among the senior library professionals of the select institutes. For the survey the select institutions were physically visited.

4. Scope of the Study

The present study is limited to the IITs of our country. However, the area is further divided into four zones i.e. North, East, South and West zone of the country. The oldest IIT is being chosen from each zone and these are as follows -

- Indian Institute of Technology, Delhi (1961) - North Zone
- Indian Institute of Technology, Kharagpur (1951) - East Zone
- Indian Institute of Technology, Madras (1959) - South Zone
- Indian Institute of Technology, Bombay (1958) - West Zone

5. Research Question

The study is motivated with the following research questions -

- What are the infrastructural facilities available at IITs for providing web-based library services ?

- What are the web-based library services provided by the IITs?

- What are the problems faced in providing web-based library services by the IITs?

6. Data Analysis

6.1 Profile of the Selected Institutions

The Table 1 furnished below gives a brief account of the basic information of the select institutes of this study. Here it is seen that out of the four selected institutes, IIT Kharagpur is the oldest one having the largest campus of 2100 acres. Moreover, all the institutes are having its own motto to fulfil.

Name	IIT-K	IIT-B	IIT-M	IIT-D
Year of Est.	1951	1958	1959	1961
Location	Kharagpur, West Bengal	Powai, Mumbai, Maharastra	Cennai, Tamilnadu	Hauz Khas, New Delhi, Delhi
Website	www.iitkgp.ac.in/	www.iitb.ac.in/	www.iitm.ac.in/	www.iitd.ac.in/
Motto	Excellence in action is yoga	Knowledge is the Supreme Goal	Effort Yields Success	-
Campus	2,100 acres	550	618 acres	325 acres
Academic staff	470	565	550	-
Admn. staf	2403	-	-	-
Students	7000	8000	3000+	5600
Library hour	8 am to 12 midnight	8 am to 12 midnight	8 am to 8:30 pm	8:45 am to 9 pm
Library collection	3.5 lacs docs, 300 print journals, 40000 e-journals, 45000 e-books etc.	2.35 lacs books & theses, 1.18lakhs bound volume, 15000+ journals etc.	-	2.15lakhs books, 1.05lakhs bound volume, 690 current journals etc.
LMS	LibSys7	LibSys	LibSys	LibSys
Repository Softwar	DSpace	DSpace	DSpace	DSpace

Table 1: Profile of the Selected Institutions

6.2 Infrastructural Facilities

Table 2 shows that all the libraries are having infrastructural facilities like full AC, internet, wi-fi, RFID, CCTV, academic portal, institutional repository, digital library etc. Moreover, all the libraries are fully automated with integrated library management software. Ofcourse, IIT Bombay was under renovation during the survey.

Infrastructural Facilities	IIT-K	IIT-B	IIT-M	IIT-D
Full AC	Yes	Yes	Yes	Yes
Internet	Yes	Yes	Yes	Yes
Wi-Fi	Yes	Yes	Yes	Yes
RFID	No	Yes	Yes	Yes
CCTV	Yes	Yes	Yes	Yes
Fully Automated	Yes	Yes	Yes	Yes
Academic Portal	Yes	Yes	Yes	Yes
Institutional Repository	Yes	Yes	Yes	Yes
Digital Library	Yes	Yes	Yes	Yes
Library Consortium	Yes	Yes	Yes	Yes
Separate Group Study Section	Yes	No	No	No

Table 2 : Availability of Infrastructural Facilities

6.3 Availability of Web-based Library Services libraries

Table 3 reveals that all the libraries are providing the web based services of accessing web resources, online databases, web OPAC, Ask-A-Librarian service, Frequently Asked Questions, Bulletin Board Services, e-CAS, e-SDI, e-Document Delivery, Virtual Library Tour etc. Ofcourse, few libraries are not providing services like Discussion Forums, Listservs, Chat Room, online library transactions, News Clipping Services etc.

Web-based Services	IIT-K	IIT-B	IIT-M	IIT-D
Online Databases	Yes	Yes	Yes	Yes
Virtual Reference Desk/Ask-A-Librarian	Yes	Yes	Yes	Yes
Electronic Current Awareness Services	Yes	Yes	Yes	Yes
Electronic SDI Service (E-SDI)	Yes	Yes	Yes	Yes
Electronic Document Delivery Service	Yes	Yes	Yes	Yes

Bulletin Board Services	Yes	Yes	Yes	Yes
Virtual Library Tour	Yes	Yes	Yes	Yes
Guidelines for fare use of E-resources	Yes	Yes	No	Yes
News Clipping Services	No	No	No	Yes
Web OPAC	Yes	Yes	Yes	Yes
Frequently Asked Questions (FAQ)	Yes	Yes	Yes	Yes
Electronic Suggestion Box	Yes	No	Yes	No
Services through Library WebPages	Yes	Yes	Yes	Yes
Listservs	No	No	Yes	Yes
Discussion Forums	No	Yes	Yes	Yes
Chat Room	Yes	No	Yes	Yes

Table 3: Availability of Web-based Library Services

6.4 Availability of Web 2.0 Services

Table 4 indicates that web 2.0 services like RSS Feeds, Podcasting, Social Networking etc. are adopted in all the select institutes; but blog, wikis are yet to be implemented

Web 2.0 Services	IIT-K	IIT-B	IIT-M	IIT-D
Blogs	No	No	No	No
Wikis	No	No	No	No
RSS Feeds	Yes	Yes	Yes	Yes
Social Networking	No	Yes	Yes	Yes
Tagging	No	No	Yes	Yes
Podcasting	Yes	Yes	Yes	Yes

Table 4: Availability of Web 2.0 Services

6.5 Availability of Web Resources

Table 5 depicts that all the selected libraries are providing web based resources like e-books, e-journals, e-theses, online databases, reference materials, subject gateways, web-links, institutional repositories etc.

Web Resources	IIT - K	IIT - B	IIT - M	IIT - D
E-books	Yes	Yes	Yes	Yes
E-journals	Yes	Yes	Yes	Yes
Online databases	Yes	Yes	Yes	Yes
Reference materials	Yes	Yes	Yes	Yes
E-Theses	Yes	Yes	Yes	Yes
Latest Faculty Publications	Yes	Yes	Yes	Yes
Subject Gateways	Yes	Yes	Yes	Yes
Links of Open Access Resources	Yes	Yes	Yes	Yes
Institutional Repositories	Yes	Yes	Yes	Yes
Courseware	Yes	Yes	Yes	Yes

Table 5 : Availability of Web Resources of libraries

6.6 User Education Programme

Table 6 shows that all the libraries provide user education programme for easy accessof web resources and web services.

Institutions	IIT-K	IIT-B	IIT-M	IIT-D
User Education Programme	Yes	Yes	Yes	Yes

Table 6 : User Education Programme

6.7 Problems of Web-based Services

Here it is found that libraries are not facing those common problems like server down, slow download speed, power failure, lack of computer, lack of space, manpower problem etc. Ofcourse, some users are neither interested nor aware about web based library services.

Problems of Web-based Services	IIT - K	IIT - B	IIT - M	IIT D
Server down	No	No	No	No
Slow download speed	No	No	No	No
Power failure	No	No	No	No
Insufficient of computers	No	No	No	No
Lack of space	No	No	No	No

Manpower problem	No	No	No	No
Lack of computer knowledge	No	No	No	No
Lack of users' interest	Yes	Yes	Yes	Yes
Lack of users' awareness	Yes	Yes	Yes	No
Lack of Search Skills	No	Yes	No	No
Lack of users' participation	Yes	Yes	Yes	Yes

Table 7 : Problems of Web-based Services

7. Findings

The study has come with the following findings -

➢ All the libraries are having proper infrastructure equipped with latest technology for providing web-based information services.

➢ All the web based services are proving through a single platform, i.e. the library portal. The library home page is being utilized for providing different information about the library and its services.

➢ Web 2.0 services like RSS Feeds, Podcasting, Social Networking etc. are adopted in all the select institutes; but blog, wikis are yet to be implemented.

➢ Libraries are mainly providing web access to different e-journals, e-books and other online databases. The libraries are subscribing different e-consortium like INDEST, DELNET, NPTEL programme etc. Other web-based information services such as online reference service, online library transactions, library virtual tour, e-CAS, e-DDS, e-bulletin board, mailing services are also proving by the libraries.

➢ The libraries are not facing any problem in providing web-based information services except the lack of users' interest towards these services.

➢ Internet connectivity is one of the most important aspects in web-based services. It is found that all the libraries are having high bandwidth internet connectivity with proper power back-up facility.

➢ All the libraries provide user education programme for easy access of web resources and web services.

8. Conclusion

Service is the heart of any organization. Libraries are also not the exception. In the modern world libraries are trying to serve its users as quickly and efficiently as possible. For that web is the most appropriate tool. There are lots of resources now available on the web to provide extra benefit to user community. Library professionals want to provide information and answers to clients. By using web, librarians are providing new and interesting resources to user community. Web services empower libraries, offering more control and simpler system customization and integration. But these and other advantages are dependent on standardization of web services. Strategic planning, training and exposure to latest technologies and constant learning are required to strengthen the web services. The library personnel should strive hard to engage with the learning community in variety of roles and functions. As the technology world is open for libraries, library professionals have to be techno-savvy to understand today's digital world. The implementation of web technology could be realised only when the library personnel are skilled.

The performance of web-based library services in IITs is quite satisfactory. All the libraries are having proper infrastructure equipped with latest technology for providing web-based information services. All the web based services are proving through a single platform, i.e. the library portal. Libraries are mainly providing web access to different e-journals, e-books and other online databases. Moreover, libraries are subscribing different e-consortium like INDEST, NEPTel programme etc. Indeed, findings show that IIT libraries are exploiting full potential of the web and develop the web-based library services for their users. Ofcourse, few of the web2.0 tools like blog, wikis are yet to include in library services. Indeed, there is something to learn from the IITs.

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'Scenario of ICT application in the College Libraries of Dhubri District : A study'

Tilak Sarma

Abstract

This paper is an attempt to highlight on the impact of ICT on the college libraries of Dhubri district of Assam. Rapid advances in information technology have provided new learning methods and environment for both the library and library users. The use of the new technologies has changed our ideas. This paper will examine the impact of ICT in the college libraries of Dhubri district, with a view to examine the role of librarian of these colleges in new ICT era. It will also try to analyse librarians perception of the different IT tools and lastly to study the problems faced by the librarian in using IT infrastructure. This paper finally gives a scenario of the college libraries of Dhubri district.

Keywords : *Information and communication Technology (ICT), College Library, Dhubri District.*

1. Introduction :

ICT has completely changed all aspect of human life such as industry, medicine, education sports, agriculture research etc. It has a great impact on changing its environment. The application ICT in college library has essential due to explosion of information and emergence of a wide range of new technology.ICT helps the library professionals for acquisition, storage, manipulating, processing and repackaging and improving their quality of products and services. ICT helps the college library to performing their operation and services most effectively. It has given an excellent opportunity for library and information professionals to make the information more valuable and effective.

Dhubri district is situated in the western part of Assam in the Indo-Bangladesh border covering 1664 sq km area with 19,48,632lakh population. There are altogether 07 colleges in Dhubri district and present study covers all the colleges of the district.

Librarian, Pramathesh Barua College, Gauripur, Dhubri (Assam)

2. Need for use of ICT in college libraries :

Information is increasing every day in various levels and on various subjects. There is a great demand to provide such information very quickly and accurately. Today, the use of ICT in libraries has become inevitable in such a era of information explosion and the emerging of a wide range of new technologies in order to satisfy changing complex information needs of users.

Following are the necessities for ICT application in college libraries:

I)   Capacity to handle any amount of data and information.

II)   To save space and store large qualities of nonconventional information.

III)   Speedy processing of information and its retrieval.

IV)   Flexibility in information search.

V)   Participation in network programming and resource sharing.

VI)   To avoid duplication of works in library operation and.

VII)   To overcome geographical and other barriers to communication.

3. Objectives of the Study :

i)   To find out the present status of application of ICT in the Dhrubri District of Assam.

ii)   To know the problems face by college libraries for rendering ICT based services in different area.

4. Literature review :

An attempt has been made to review the available literature on the subject.

Natarajan[1] in his study on "exploring the E-resources for educational use" discusses about the electronic resources and their different types. Role of Library professional for making the E-resources available to different types of user community is discussed in detail.

Rattan[2] discusses how ICT has changed the traditional static libraries into live services which are now functional 24x7 discarding the barriers of boundaries.

Kacherki and Kannur[3] discuss role of ICT in information storage and retrieval have brought pressure on Librarians to update their knowledge and skills and seek changes from the traditional library technique to modern automated system.

Venkatesh[4] access the role of ICT in social progress, technical and market evaluation, and the status of ICT in the various regions of the world. It discusses the barriers, impediments and digital divides caused by ICT.

Gogoi,Suraj Kumar[5] give an overall brief review on use of E-resources by P.G. students of Assam Medical College, Dibrugarh. There are lots of changes in the way of study by the E- resources that make easy and convenient.

5. Methodology :

The methodology and technique applied for preparing the paper through spot verification and direct interview with different librarians of college libraries of Dhubri district. Dhubri district of Assam has total 07 numbers of provincialised colleges.

6. Discussion and findings :

A college is an institution of higher education that imparts the world of knowledge. College library plays very significant role in the educational programme. The basic function of college library should be to assist the need and requirment of teacher, students, and staff towards reading consultant of study. ICT has tremendous impact of various aspect of college library.

6.1 Year of installing computerization :

Table 1: Collection, quantity of computers etc. in the college libraries

Sl. No.	Name of the college	Year of Estd	Year of computerization	No. of Computer	Library collection	Journal subscribed	N-List
1	Bholanath college	1946	2001	06	41300	24	Yes
2	BilasiparaCollege	1960	2006	02	22500	08	No
3	ChilaraiCollege	1973	Nil	01	14000	06	No
4	Mankachar College	1971	Nil	01	23800	02	No
5	P. B.College,Gauripur	1964	2004	12	27000	13	Yes
6	Ratnapith College,	1987	Nil	01	15000	10	No
7	Sapatgram College	1972	2010	03	17600	12	No

Table 1 show that colleges have started computerizing their libraries from the last decade only. Three colleges has not yet started the computerization work till now. It is

found that P.B.College use08 nos computers in internet section and 02nos computers use in circulation section. The number of journal subscribed by the some libraries is also very less. Only two colleges has been registered N-List programme provided by INFLIBNET though it is free for the colleges of North East covered u/s 12B/2f of UGC Act.

6.2 Manpower in the surveyed college libraries :

Table 2 : Present staff pattern in the libraries

Name of the college	Total staff	Professional	Non professional
Bholanath College	05	01	04
BilasiparaCollege	04	01	03
ChilaraiCollege	03	01	02
Mankachar College	03	01	02
P.B.College,Gauripur	05	01	04
Ratnapith College,	04	01	03
Sapatgram College	02	01	01

Table 2 shows that there is no professionally qualified staff in the library except the librarian. Sometimes it creates a lot of problems for the librarian to handle all the technical works. It is unfortunate that two colleges namely, Chilarai College and Ratnapith College both the Librarians working in the lump sum pay given by the college authority. Their post is not yet sanctioned by the government. In sapatgram college the staff strength is very less as per requirement.

6.3 Library software used in the surveyed colleges :

Table : 3 Present status of Library software in the colleges

Sl. No.	Name of the college	SOUL	CDS/ISIS	Others
1	Bholanath College	SOUL2.0	X	x
2	BilasiparaCollege	SOUL2.0	X	X
3	ChilaraiCollege	SOUL2.0	X	X
4	Mankachar College	SOUL2.0	X	X
5	P.B.College,Gauripur	SOUL2.0	X	X
6	Ratnapith College,	SOUL2.0	X	X
7	Sapatgram College	SOUL2.0	x	x

Table 3 shows that all the libraries have SOUL 2.0 software but in most of the colleges the progress of work is in very initial stage.

6.4 Library Infrastructure Facilities in surveyed colleges :

Now a day's infrastructural facility in college libraries are very important to provide better services for user. Information is increasing day by day, so equipment is very essent5ial to fulfill the needs of the user.

Table : 4 Tools of IT In the college Libraries

Name of the college	Xerox	Printer	Fax	Internet	Barcode
Bholanath College	02	02	No	Yes	No
Bilasipara College	No	No	No	Yes	No
Chilari College	No	No	No	No	No
Mankachar College	No	No	No	No	No
P.B.College, Gauripur	01	01	No	Yes	No
Ratnapith College	No	No	No	No	No
Sapatgram College	No	No	No	No	No

Table 4 shows that most of the college libraries are lacking the minimum basic facilities such as Xerox, Internet etc. In most of cases the internet and Xerox machines are attached with the college office only. Fax and barcode facility is not found among the surveyed libraries.

7. Reasons for Insufficient Application of ICT in services :

From the observation it is found that there are various reasons behind the insufficient application of ICT in the college libraries in Dhubri district of Assam.

i) Financial constrain.

i) Lack of Infrastructure.

iii) Lack of support of the concern authority.

iv) Lack of computer knowledge.

v) Lack of adequate qualified professional staff.

vi) Lack of sufficient manpower.

7.1 Some other problems facing in implementation of ICT based library service :

i) Inadequate financial resources.

ii) Lack of proper guidelines and planning for automation of library activities.

iii) Non- availability of IT trained personnel.

iv) Inadequate management support.

v) Non availability of consultancy services.

vi) Erratic power supply etc.

8. Suggestions :

It has been observed that the college libraries of Assam can gives better services through ICT based services to its users, if the said problems are solved. Considering the importance of college libraries for student's community the govt. of Assam should released a big amount of money only for the infrastructure development of the college libraries. The UGC should frame a different guideline for granting aids in different areas exclusively towards rural college libraries of Assam.

Conclusion :

Application of ICT is very important in improving the capabilities of Library and information services towards attaining satisfaction of users. Librarians should understand the nature of information need of users, the transfer process between users and information. Understanding of this new dimension of library and information services will help concern policy makers in formulating appropriate plans and programmes to make the library and information services most effective.

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'Social Networking Sites : A New Form of Communication for Modern Libraries'

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Abstract

Libraries, as information and social institutions that have always been up-to-date with modern technological developments and to this context social networking site is one such forms of communication medium. With the help of different social networking sites (SNS) like Facebook, Twitter, MySpace etc. it enhances the process of information procurement, sharing and dissemination among users. In this regard, with the changing scenario librarian and information professionals must play an active participation in this social space to meet the growing demands of users. So basically the purpose of this study is to discuss the concept of social networking sites, it useful social networking tools and its importance in library. In this context the role to be played by librarians and other information professionals are also discussed along with the obstacles to be faced in this path.In present world Social networking sites are seen as an effective outreach tool, helping librarians and information professionals to promote the services provided by the library and connect more deeply with the broader library community.

Key Words : *Library, Social Networking Sites (SNS), Social Networking tools, Facebook, Twitter, MySpace, Librarian, Information Professional*

Introduction :

The technological development of 21st century specially the evolution of internet and WWW has changed the world drastically. The advancement of ICT made this whole world into a small globe and also gives a new form of communication. In every phase of our lives we have seen changes and Library is not an exception, especially the use of different Web 2.0 applications has changed the library services. These Web 2.0 applications give advantages to library professionals for sharing their information with users in easier way.

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Objectives :

The objectives of this study are as follows :

1. To discuss about different social networking tools that acts as a helpful source of communication between libraries and users.

2. To study the importance of social networking sites in a library.

3. To discuss the role of the librarian in this changing environment.

4. To understand the possible obstacles of social networking tools in user participations.

Literature Review :

In the mid 2000, a study in USA showed that the most of the library directors and general public of United States of America did not think that libraries had a role in social networking (De Rosa et al., 2007). But gradually with more technological innovations Libraries found it advantageous when they wished to communicate with their peers, to answer user's enquiries, thus providing answers more efficiently. In enhancing libraries social visibility through profile, Facebook and MySpace is found to be more helpful which showed a uniform identity. Many Studies are done on use of Social Networking Sites in libraries. Among them one of the studies was done by Kim & Abbas and they found that librarians were often more interested in the library's social media applications than students (Kim and Abbas, 2010). One more study which was conducted among library and information professional of University libraries of U.P. showed that 55% LIS professionals were using Facebook everyday and more than half of the respondents were of the opinion that Facebook proves helpful in making awareness and also agreed that it works as a platform to avoid barriers of location and nationality (Parveen, N., 2011). Another study which was done by Chu and Du discuss the factors that influence the application of Social Networking Site in 140 Asian, North American and Europe libraries and found that Twitter and Facebook were the most commonly adopted tools and that library staff have a positive attitude towards the application of Social Networking Sites (Chu & Du, 2012).

What is Social Media?

Social Media are computer mediated tools that allow people to create, share or exchange information, ideas, thoughts and pictures/videos in virtual communities. Social Media can be defined as a group of internet based applications that builds on the ideological

and technological foundations of the Web 2.0 and that allow the creation and exchange of user generated content.

Furthermore social media depends on mobile and web based technologies to create highly interactive platforms through which individual and communities can share, create, discuss and modify user generated context. They introduce substantial and persuasive changes to communications between businesses, organizations, communities and individuals. Social Media differs from traditional or industrial media in many ways including quality, reach, frequency, usability, immediacy and permanence. Thus it can be broadly defined to refer to the many relatively inexpensive and widely accessible electronics tools that enable anyone to publish and access information collaborate on a common effort or build relationship.

What is Social Networking Sites?

A Social Networking site is a platform to build social networks or social relations among people who share interests, activities, backgrounds or real life connections. A social network service consists of a representation of each user (often a profile), his or her social links and variety of additional services. Social Networking sites are web based services that allow individual to create a public profile, to create a list of users with whom to share connections and views and cross the connections within the system. Most social networking sites are varied and they incorporate new information and communication tools such as mobile connectivity, photo/video sharing, blogging etc. In a social networking sites user is a participants, co-creator and builder of knowledge. Some of the prominent examples of social networking sites are facebook, twitter, MySpace, Linkdein etc.

Some Useful Social Networking Sites for Librarians :

We are living in 21st century and in the form of different social networking sites we got a new way of communication. Social networking sites are helpful for stirring up interactions among users. With the hundreds of social networking sites available today, it is not surprising that people find it difficult to manage their social media accounts. Here are some social networking tools that can assist librarians to manage numerous social networks and help them to share information with users to meet their information needs.

Facebook : One of the most popular social networking sites in the world which is frequently used by students. It is a librarian friendly, with many applications like JSTORE search, world cat and many more. Librarian can interact with the users and ask them about their needs. Here group communication also can be possible.

My Space : Another social networking tool which is equally popular like facebook. Libraries have taken advantage of this site to post, calendar, custom catalog search tools, and blog features to improve their presence.

Blog : Blog has received significant amount of attention in the library world.Librarians can give information to lots of people at single time. Librarian can post messages; share information on a particular subject or issue, and user can also contribute to that content.

Twitter : In present world Twitter is one of the most popular social networking tools. Librarian can frequently update about daily activities of his/her library and also can share his/her experience with his/her peers as well as users.

LinkedIn : At present Linkdein is the most famous social networking tool that used by the professional of different field. Librarians can also use this tool to share and find information among its patrons.

Ning : Librarian can use this Social Networking tool to share information with many people at a time and also to get connected with students, colleagues, library associations etc.

Slide Share : This SNS tool encourages faculty, staff, and students to share their slideshow presentations for the greater community. It's a great way to disseminate information and librarians can take advantage of it.

Community Walk : It offers a geographical way to interpret text and events. One can use it for instruction, such as showing someone where to find a book.

YouTube : With the help of this social networking tools librarian can share information with their user by sharing library video, library orientation video, events or any other video of library services.

Flickr : Librarians can use this tool to share and distribute new images of library collections. Cover page of new arrivals of both books and journals can be disseminated to users via Flickr. Librarian can share photo collection of workshops, seminar, conference and many different programmes that are organized in campus.

Second Life : On Second Life, librarian can create a virtual library with streamedmedia, discussions, classes, and more.

Library Thing : A tool that enriches the library OPAC. This social cataloging network

is great for librarians, and they can catalog along with more than 200 other libraries around the world. Librarians can utilize this to send a list of current publications to users.

Importance of Social Networking Sites in Library :

In present day context Social networking tools play a very important role in the process of information procure, use and dissemination among users. It gives the opportunity to access, update and relevant information and resources by providing active participation among users with the help of different social networking tools and at the same time it helps users in ensuring knowledge sharing, understanding and evaluation with the different links which are available in the web environment. It also acts as a source of entertainment and provides amusement for the user. It ensures open access movement among the libraries and encourages easy content creation and sharing of information. In the knowledge society it is always an advantage to have technical skills and access to information technologies. It is always important for people to have diversified and supportive social connections.

According to Com- Score, in June 2007 world's top three social networking sites-YouTube, MySpace and Facebook-attracted more than 350 million people to their Web sites, and each time they visited, users stayed connected for at least an hour and a half.At Facebook the average stay per visit was nearly four hours. With these types of usage statistics, it is easy to see why social networking sites are gaining its importance among the general public. Till 2015, the most used social networking tools like facebook, twitter, Linkdein etc. have got more than 2.10 billion people. So in this virtual environment, libraries are also trying to participate and stay connected to social networking sites as it is an excellent tool for marketing of library information resources and service.

Some Best Practices of SNS in Libraries :

Just a decade ago, social media was seen by many as having little relevance for use in a professional context by librarians. In recent years there has been a sea change in attitudes. Currently Facebook and Twitter remain the most popular channels but concurrently other SNS sites like YouTube, Flickr etc. are also started gaining popularity. Most of the big library and library associations are using SNS tools for promoting their resources and library activities. In 2005, Denver Public Library decided to look into MySpace.com. They started promoting its MySpace presence in spring 2006 and advertised it on the library's main site and this page has had over 14,000 page hits to date, and traffic to the library's online teen site increased 41 percent in the year following launch of the MySpace page. Library of Congress has also launched their facebook, Twitter, YouTube, Flickr etc. pages.In Twitter LOC have more than 754K followers.
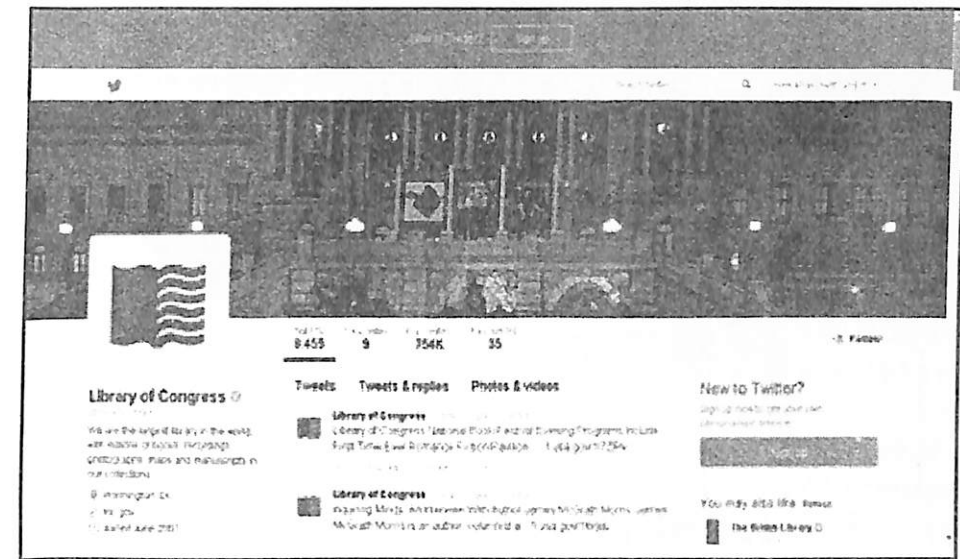
Fig. 1: Twitter page of Library of Congress

British Library has also their Facebook, Twitter, Flickr, blogs etc. In their Flickr page they have more than 15.7k followers.

Fig. 2: Flickr page of British Library

Fig. 3: British Library Blog page

Library associations like IFLA, OCLC, ALA etc. have their own SNS pages. They used these SNS tools very effectively. Most of the World's top Universitylibraries such as New York University library, Yale University library, Havard College Library etc. are also using these tools for promoting and marketing their services and collections. Many Indian Libraries are also using SNS tools to promote their services. Smt. Hansa Mehta Library of M.S.University of Baroda has extensively used SNS tools like facebook, Twitter, Blogger etc. to promote their resources. Hansa Mehta library is one of the biggest academic libraries in India with more than 10 lakh collections. Other than that JNU library, Indira Gandhi Institute of Technology library, DA-IICT Library etc. are also using SNS tools.
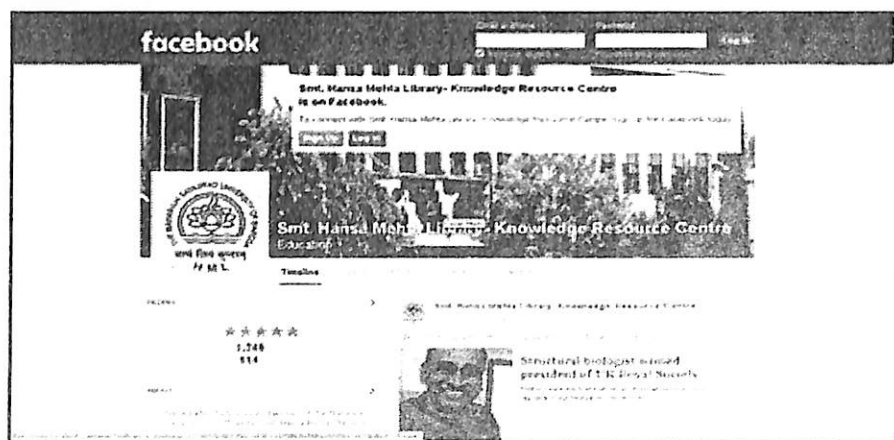
Fig. 4 : Facebook page of Smt. Hansa Mehta Library

Roles of Librarians :

We are living in an information-driven society and libraries are major information providers and facilitators. In present world Social Networking Sites have proved very popular with people, with services like MySpace, Facebook, and Twitter etc. This SNS tools offers libraries and librarians the opportunity to be more proactive in their outreach to their users. To connect with users, librarians have to adopt social networking tools as part of the library 2.0 movement.

Librarians have to expand their role in the creation, use and dissemination of information by engaging these SNS tools as a central medium for communicating with library users and also provide services to fulfill their information need. Librarian should act as an active participant of the social space and be able to recognize the needs of the users of the library communities and to give solutions by offering information, links to the websites that are relevant to their information needs; and even direct offers of help. To links to library catalogue, research guides, calendar of events, news and other services of the library, Librarian can connect their Social Networking tools with their library websites. To play an important role in this context librarian should have some skills likeshe/she should have tech-savvy, proactive, able to create social friendly webpage network space, should have good understanding the nature of SNS tools, able to create user and content, evaluating and applying information and providing quality online library services etc.

In their mission to connect with library users Librarian should perform roles like information broker, information facilitator, Innovative Manager, Effective collaborator, Policy maker, Knowledge Educator, Expert Web navigator etc. Librarians should be able to study profiles of users to reflect their informationneeds and match them with the library collections. To adapt a new ways of accessing, communicating and sharing knowledge, Librarians can educate patrons on the use of these social networking tools. Librarian is the sole custodian to execution the task of planning, organizing and implementing social networks in library and information centre.

Obstacles of Social Networking Tools :

Despite of widespread use of social networking tools, still librarians are not using these social networking tools to get connected with their users. There are many challenges which may face by the librarian while using social networking tools for their library. User participation is the main key for successful implementation of social networking tools. So to prove as a good social partner in the online collaborative environment, library should think and overcome those challenges.

In a recent study by Fooladi & Abrizah has identified four major themes of obstacles, namely: workflow obstacles, technology obstacles, organizational obstacle and personnel obstacle. (Fooladi & Abrizah, 2013). In workflow obstacles the mentioned that time, level of authority and job functions as a constraint of using social networking sites. As a technological obstacle they discussed about non-familiarity with new and existing technology. In organizational obstacles they talked about lack of social media policy and dedicated personnel. And finally as a personnel obstacle they discussed about language problem, lack of scholarly content and non-commitment of library staff.

To successfully use social networking tools in library, librarian and his professional staff should be aware of recent technological development and also familiar with different social networking tools. Lack of awareness about different social networking tools is one of the major problems in implementation of social media in libraries. Many librarians and library staff are afraid of handling computers and internet based applications and this technophobia is also a major concern in successful execution of SNS tools in libraries. In developing countries internet problem/slow internet connection and unreliable power supply are also key constraints for successful accomplishment of SNS tools in libraries.

The most important factor for successful implementation of SNS tools in libraries is all about participation and sharing, engagement of librarians and user. A suitable plan and strong evaluation needs to be look while pioneering social networks in library. To overcome the above mentioned problems library professional should organize user awareness programme like library orientation, seminar, conference and workshops to create awareness among library professionals as well as users about available social networking tools. Library professionals should embrace current changes and have to proactive in order to remain up to date in present ICT driven environment.

Conclusion :

Social Networking tools are the new form of communication of 21st century. Social networking sites (SNS) provide an innovative and effective way of connecting users (O'Dell, 2010).These SNS tools help libraries to connect with their users faster, easier and more accessible to a wider population than it's ever been before.The use of different social networking tools by libraries is also increasingly widespread and a rising tool that is being used to communicate with more potential library users. Social networking tools give libraries the opportunity to engage their current online audiences and simultaneously build an interactive Web community.Users want a better experience, they want to be involved and they want more value. Use of Social networking tools in libraries are a step forward in that direction.

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'ICT on Library and Information Science in College Libraries of Assam with special reference to Dibrugarh and Tinsukia District : a study'

¹Dipika Das, ²Dipankar Debnath

Abstract

ICT facilitate the process of identification, collection, storing, processing and disseminating of information. The library and information science professionals are utilizing ICT to keep pace with the problem of information explosion. The benefit of instant access to digital information is the most distinguishing attribute of the information age. The use of ICT has resulted in the globalization of information and knowledge resources. This paper also discusses the aim and objectives, methodology, components of ICT, impact of ICT, and analysis of Survey based libraries.

Keyword : - *Information and communication technology, college library, Surveyed library.*

Introduction :

Information Technology is the modem science of gathering, storing, manipulating, processing and communicating information. Information needs are increasing day by day and today every person is intending to be information oriented. Thus libraries have to be the main information centres. Today users, the information centres have to be fully equipped with all types of facilities supporting and automating all the library services and operations / activities. Information technology has influence very significantly our work culture. The current development and advancement in the information technology has also brought the libraries and offices to homes as their work-places. Information has also strengthened us in taking decisions in a more scientific way.

Aims and Objectives :

The aim of the study is to find out the impact of ICT on library and information science in the survey libraries of Dibrugarh and Tinsukia District.

Librarian, Dibru College Central Library, Dibru College, Dibrugarh
Assistant Librarian, Dibru College Central Library, Dibru College, Dibrugarh

Methodology :

As the focus of this study is to examine the impact of Information Technology on the Surveyed college libraries, it is essential to study the existing status of the college library. The primary data is derived from personal experience, personal observation of the activities of different Sections, library websites, discussion with colleagues etc. To get idea about some impacts Questionnaire were distributed responses were collected and then results were analyzed.

Components of ICT :

ICT is a broad term that covers wide range of technologies. It is the convergence of computers, communication and microelectronic based techniques. The technologies and devices like Radio, Telephone, Telegraph, Fax, TV, Mobile phone, Internet, WWW. Email, LAN, ISDN, Video Conference and satellite communication techniques are major past of ICT with the help of LAN, College community easily shares the information Telephone and another devices play important role in library services like SDI, inter library loan, reference Service and online information retrieval.
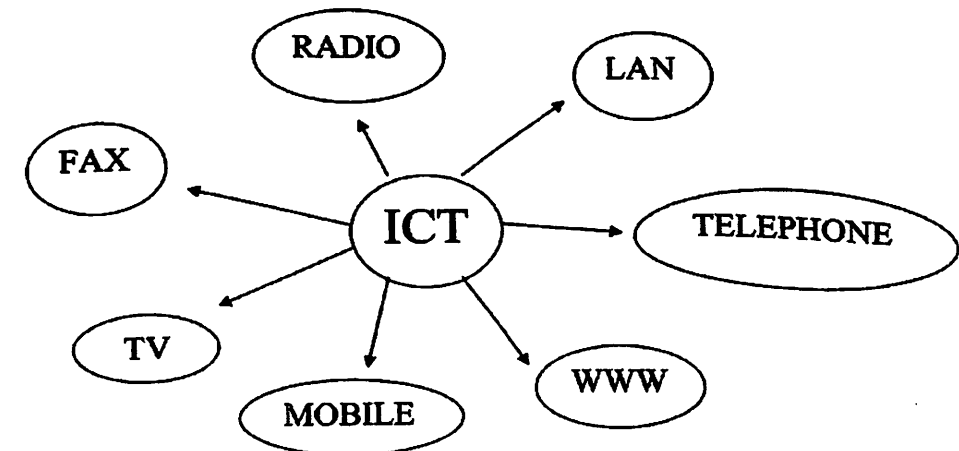
Fig.1. Components and Devices of ICT

a) Computer Technology :

The computer is perhaps the most useful modern tool yet developed. Today, we are using computer in ever - increasing numbers, in ways never imagined just a few years ago. Computer can store every variety of information recorded by people and almost instantly recall it for use. They can calculate tens of millions of times faster than

human brain and solved in many problems that would take batteries of expert year's to complete does we see that computer can do precisely all those jobs for which we use many devices with a set of detailed instructions.

b) Communication Technology :

Communication technology is used in communicating the information from generator to the user of the information. For communicating the information any type of communication system search as verbal, telephone, etc. In general when information is communicated by system, a communication channel capable of carrying signals of a particular type is provided. To send a information over this channel, the information must be converted from its original form to a form in which the channel can carry it. Some technological tools, which are popular these days are telephone, Fax, TV, E-mail, Internet, etc.

c) Multimedia Technology :

Multimedia technology is most commonly applied to the simultaneous use of sound, text, image and video in preparing presentations. Mainly, PCs are capable of supporting multimedia applications such as multimedia an encyclopedia and games etc. Multimedia is fuelled by availability of suitable transport networks and effective compression techniques to reduce the vast data rates required by video and to a lesser extent, voice such that communication across the available network becomes practical.

d) Optical Technology :

The emergence of compact disc for storage of information is dominating day to day routine activities. Compact disc one of the most important and useful electronic media of storage of information. Compact disc is a silver plated disc, which is of 1.2 mm thick and is plastic coated. It is a read only device and cannot write or record data on it to read it the disc must be passed through a player.

e) Networking Technology :

Merging of computer and communication technologies has emerged as a networking. This is a system through which two computers can talk to each other. Now, there are so many networks operational throughout the world. In India NICNET, INDONET, PUNNET, CALIBNET, DELNET, INFLIBNET are some of the important network.

f) Barcode Technology :

Barcode technology can be defined as a self contain message with information encoded in a series of black bars of varying breadths and white spaces between every two of them. The bars and spaces represent a series of characters or digits these are readable only by a scanner which sends messages to the computer that decodifies such bars on 0 and 1 and white 1's and white blanks as off or on. Hence, barcode is a series of 0's and 1's representing characters in such a form as can be identified by computers only.

Impact of Information Technology on Libraries :

The library is the main information centre which can make use of the fast developing IT for the benefit of mankind as a whole. The librarians preference of IT should include all those technologies which are expected to be used in the library activities and other library services for: collecting, processing, storage, retrieval and dissemination of recorded information. The fast developing information technologies have showered almost every area of application including libraries. In case of libraries these are good use in the following environment.

(a) **Library Management** : Classification, Cataloguing, Indexing, Database creation, Database Indexing.

(b) **Library Automation** : Organization of all library databases, all housekeeping operations of library

(c) **Library Networking** : Resource sharing and information dissemination.

(d) **Audio - Video Technology** : photography, microfilms, microfiches, audio and tapes, printing, optical disks etc.

(e) **Technical Communication** : technical writing, editing, publishing, including DTP systems etc.

ICT Advantages :

ICT reduces labour and saves a lot of time of the staff and users too. LAN is used to link a variety of different communication devices. LAN provides cost effectiveness in various services in the campus.

Internet and Email system enable the students and scholars to remote access, worldwide communication; professional communication among library and information science societies has become easy with the help of Email.

ICT Disadvantages :

i.   Expensive
ii. Need Expertise
iii. Socio technical issues
iv. Information insecurity
v.   More technology dependence
vi. Less use of human brain

SURVEYED LIBRARIES

ICT Based Resources Library Activities and Services: - A Comparative Study

ICT Resources of Survey Libraries:

The libraries in the surveyed college use various types of electronic equipments and communication technologies to ensure the smoothness of library activities. The following table shows the ICT resources in surveyed libraries.

Table 1

Name of the College Library	ICT Resources					
	COMPUTER	PHOTO COPY	PRINTER	SCANNER	BAR CODE PRINTER	CCTV CAMERA
D.H.S.K. COLLEGE	05	01	01	NIL	01	05
D.H.S.K. COMMERCE COLLEGE	07	01	01	NIL	01	02
MDKG COLLEGE	05	01	01	NIL	01	06
DIBRU COLLEGE	09	NIL	02	02	01	NIL
NAHARKATIA COLLEGE	13	01	01	01	01	16
NAMRUP COLLEGE	15	01	01	01	01	04
ASSAM MEDICAL COLLEGE	45	NIL	01	02	01	20
TINSUKIA COLLEGE	16	01	01	01	NIL	07
TINSUKIA COMMERCE COLLEGE	17	01	01	02	01	NIL
DOOMDOOMA COLLEGE	17	01	01	04	01	08

Use of Library Software :

For creating and maintaining a database, the librariesinthe Surveyed use different types of software. The following table shows the software used by the Surveyed libraries.

Software used by the Surveyed libraries

Table 2

Name of the College Library	Software
D.H.S.K. COLLEGE	SOUL 2.0
D.H.S.K. COMMERCE COLLEGE	SOUL2.0
MDKG COLLEGE	SOUL2.0
DIBRU COLLEGE	SOUL2.0
NAHARKATIA COLLEGE	SOUL2.0
NAMRUP COLLEGE	COLLEGE MANAGEMANT
ASSAM MEDICAL COLLEGE	KOHA
TINSUKIA COLLEGE	SOUL2.0
TINSUKIA COMMERCE COLLEGE	SOUL2.0
DOOMDOOMA COLLEGE	SOUL2.0
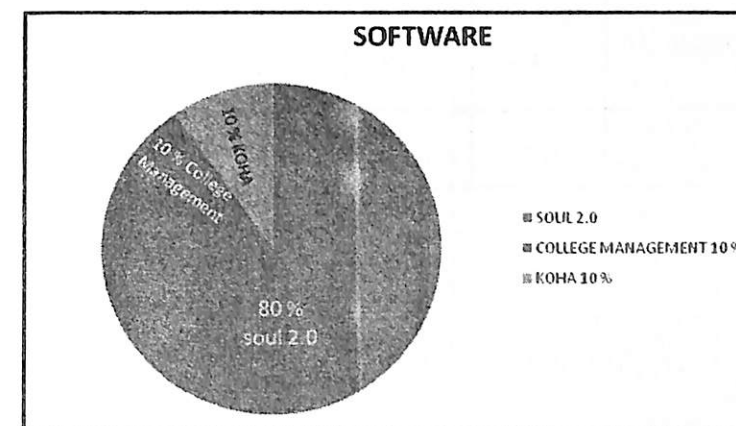
Fig. 2. SOFTWARE

ICT based Library Activities :

Libraries in the survey use ICT activities such as Acquisition, Cataloging Circulation, Serial Control, OPAC, and Administration.

Table 3

Name of the College Library	Activities					
	Acquisition	Cataloging	Circulation	OPAC	Serial Control	Administration
D.H.S.K. COLLEGE	NO	YES	YES	YES	NO	NO
D.H.S.K. COMMERCE COLLEGE	NO	YES	YES	YES	NO	NO
MDKG COLLEGE	NO	YES	YES	YES	NO	NO
DIBRU COLLEGE	NO	YES	YES	YES	NO	NO
NAHARKATIA COLLEGE	NO	YES	YES	YES	NO	NO
NAMRUP COLLEGE	NO	YES	YES	YES	NO	NO
ASSAM MEDICAL COLLEGE	NO	YES	YES	YES	NO	NO
TINSUKIA COLLEGE	NO	YES	YES	YES	NO	NO
TINSUKIA COMMERCE COLLEGE	NO	YES	YES	YES	NO	NO
DOOMDOOMA COLLEGE	NO	YES	YES	YES	NO	NO

ICT Based Library Services

Libraries provide computerized service to users. The following table illustrates the different Services provided by libraries.

Table 4

Name of the College Library	ICT Resources				
	Online Searching	Photocoping	Online Information Service	Database Searching Service	Web OPAC
D.H.S.K. COLLEGE	NO	YES	NO	NO	YES
D.H.S.K. COMMERCE COLLEGE	NO	YES	NO	NO	NO
MDKG COLLEGE	YES	YES	NO	NO	YES
DIBRU COLLEGE	YES	NO	NO	NO	YES
NAHARKATIA COLLEGE	YES	YES	NO	NO	NO
NAMRUP COLLEGE	YES	YES	NO	NO	NO
ASSAM MEDICAL COLLEGE	YES	NO	NO	NO	NO
TINSUKIA COLLEGE	NO	YES	NO	NO	NO
TINSUKIA COMMERCE COLLEGE	YES	YES	NO	NO	YES
DOOMDOOMA COLLEGE	YES	YES	NO	NO	YES

E-Resources

E-Resources in the library

Table 5

Name of the College Library	Consortium
D.H.S.K. COLLEGE	N-LIST
D.H.S.K. COMMERCE COLLEGE	N-LIST
MDKG COLLEGE	N-LIST
DIBRU COLLEGE	N-LIST
NAHARKATIA COLLEGE	N-LIST
NAMRUP COLLEGE	N-LIST
ASSAM MEDICAL COLLEGE	ERMED
TINSUKIA COLLEGE	N-LIST
TINSUKIA COMMERCE COLLEGE	N-LIST
DOOMDOOMA COLLEGE	N-LIST
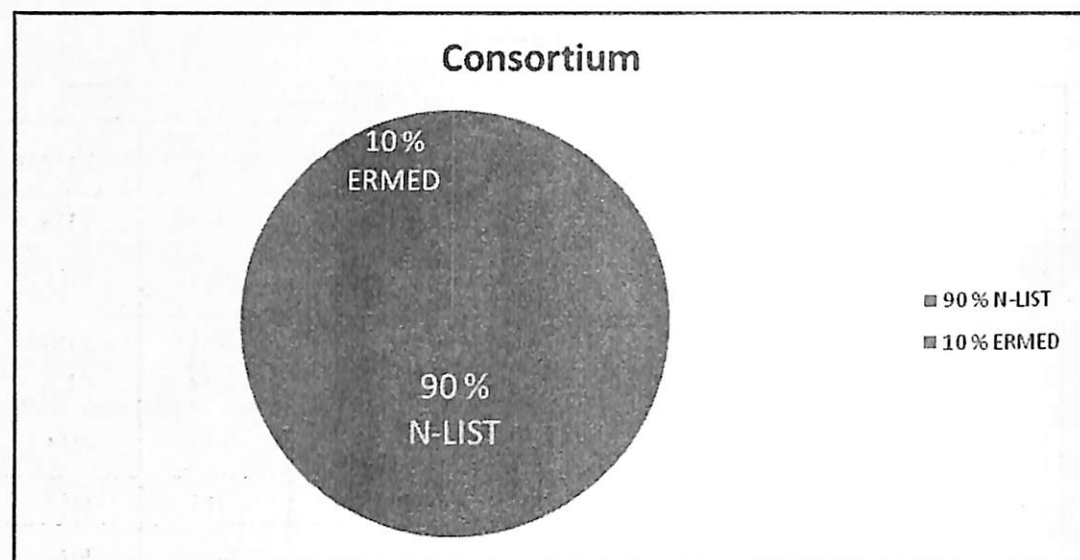
Fig. 3. CONSORTIUM

Findings and Recommendations :

i.   With the help of telephone, email, etc. reference queries are answered faster than before.

ii.   SDI, CAS etc. are also done faster than before.

iii.   Issue, return of books, renewals are done faster than before.

iv.   Book selection, Price checking are also done very efficiently using ICT.

v.   About 50% of the users of the library search webOPAC for getting information about the where about of books.

vi.   About 70% of the users make use of internet searching facility.

vii.   If the software or the hardware stops working, it is very difficult to continue the routine work of the library.

viii.   About 80% of the survey libraries using SOUL 2.0, 10% of the libraries using college management and 10% of the libraries using KOHA.

ix.   About 90% of the libraries using N-LIST and 10% of the libraries using ERMED (Electronic Resource in Medicine)

x.   All the surveyed libraries are partially automated.

Conclusions :

Recent advances in computer, communication, photography, technological product and services, technical publication and library techniques permit data to be collected transmitted stored processed, retrieved and displayed more rapidly, accurately, completely, economically and flexibly. Such advances are gradually the way in which library operations are performed. The increasing complexity of library operations, improvements in existing managerial techniques and advances in information technology have also led to the development of sophisticated and highly automated managerial planning and control systems.

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AUTHOR INDEX

ডিব্ৰু মহাবিদ্যালয়ত গ্ৰন্থাগাৰিক দিৱস উদযাপন

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ডিব্ৰু কলেজত গ্ৰন্থাগাৰিক দিৱস

OLD LIBRARY

Release Granthakuti Vol I

Reading Room

Circulation Section

NEW LIBRARY

Front View

Corner View

Library Entrance

Best Reader's Award

**Minati Konwar
(2010 - 2011)**

**Shweta Misra
(2011 - 2012)**

**Boidya Buragohain
(2012 - 2013)**

**Kalpajyoti Borgohain
(2013 - 2014)**

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