

## **Problems and Prospect of ICT Implementation and Digitization among the Major College Libraries of Barak Valley, Southern Assam: A Case Study**

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**Abstract:** *The current paper discussed about the various issues and challenges of ICT implementation and digitization of college libraries of Barak Valley, Southern Assam. Barak valley as an interior place of Assam and north east India has less economic development in comparison to rest of India. Facing with various problems the college libraries of this region are growing day by day with chasing the challenges. UGC's autonomous centre INFLIBNET are continuously doing their best effort in supporting the automation of libraries of this region with their software SOUL and other helping hand. The paper mainly discussed about the ground problems of the college libraries in the ICT implementation and digitization.*

**Keywords:** *ICT (Information Communication Technology), Digitization, College Library.*

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### **I. Introduction**

Information communication technology (ICT) and digital library system plays an important role in present day's higher academic system. Colleges are important sector of higher education system. Development of ICT and digital library system are demand of time to fulfill the information needs [1]. Barak Valley a remote area of Southern Assam comprises of Cachar, Karimganj and Hailakandi Districts. Colleges of Barak Valley cover of Assam University jurisdiction. The College libraries of this entire region ICT development and digital library system are still in a very initial stage. I have selected 10 major colleges of the region for this research study. These colleges are taken into account of study on the basis of importance and established period.

Digitization of libraries generally means with traditional system of libraries with ICT infrastructure. In digitization process the important rare and old library materials can be moved to digital form or access of e-resources available through internet. There is a basic difference between digital library and digitization of libraries. We can move a traditional library to digital after the implementation of digitization process. According to Marchionini (1988) in *Encyclopaedia of Library and Information Science*. Vol.63 "Digital libraries are the logical extensions and augmentations of physical libraries in the electronic information society. Extensions amplify existing resources and services and augmentations enable new kinds of human problem solving and expression"[2].

Major Colleges of Barak Valley covers under this research study...

- G C College, Silchar
- Karimganj College, Karimganj
- Srikishan Sarda College, Hailakandi
- Cachar College, Silchar
- RS Girls College, Karimganj
- Womens College, Silchar
- Janata College, Kabugabj, Cachar
- Nabin Chandra College, Badarpur, Karimganj
- Radhamadhab College, Silchar
- M C Das College, Sonai, Cachar

Institute of higher learning Colleges needs a good library system with present days networking environment. Implementation of ICT and digitization process is very much essential for the better academic development through the connectivity among libraries to maintain co-operation, resource sharing through institutional repositories and other e-resources available through internet [3]. College Libraries of Barak Valley, Assam also have better scopes to develop its libraries with latest ICT infrastructure and digital library system by growing its potential.

Motivation behind the study of problems and prospect of ICT implementation and digitization of college libraries Barak Valley is to overall development with the other colleges of north eastern States. The present research study is the earnest attempt in filling the gap with national development in the field of ICT and

digital library system to traces out genesis, the growth of the college libraries in this region of Barak Valley, Assam.

## **II. Statement Of Problem**

Without problem no research has been done. When problem arises people think about its solution. In everyday life we have to face various problems. In the field of library ICT implementation and digitization of college libraries of Barak Valley have various problems, which are taken into account through this study. After consultation various literatures published in the field of ICT application in the college and university libraries of Barak Valley, South Assam and North East India as well as Indian scenario the present case study is an earnest attempt to find out the real situation prevails in major college libraries of Barak Valley. In the changing environment of ICT and digital Library era the colleges of Barak valley are lack behind of national development [4]. After finding the gap of development in ICT infrastructure and digital library systems the hiding problems have been accounted in this study through a case study of major colleges of Barak Valley.

## **III. Objectives Of The Present Study**

- i. To find out the level of growth and development in the field of ICT infrastructure and automation status of Selected College libraries of Barak Valley, Assam,
- ii. To trace out the basic problems towards implementation of ICT and digitization of the college libraries, and
- iii. After tracing the problems to find out the future scopes/prospect towards ICT implementation and digitization of the college libraries of Barak Valley towards achieving its academic goals.

## **IV. Scope And Limitations Of The Study**

The present study about the problems and prospect of ICT implementation and digitization of among the major colleges of Barak Valley, Southern Assam has so many Scopes as well as limitations also. Due to lack of field research in this study area of ICT implementation and digitization in this region of Barak Valley, Assam will create various scopes for further studies. The colleges of Barak Valley can be grow by implementing ICT infrastructure and digitization for creating better academic environment [5]. When ICT components and digital library system will establish users of college libraries will get more benefited in their study and research aspect. Development of the college libraries with ICT and digital library environment will create better scope for academic development. As a sample basis major importance colleges has been undertaken in this study. So entire population are not covers under this study which is a prime limitation in this research study. Due to lack of infrastructural development communication gap in the area of research all research instrumentation will not be apply for this study.

## **V. Research Methods Adopted**

For the present study “Problems and Prospect of ICT Implementation and Digitization among the major College Libraries of Barak Valley, Southern Assam: A Case Study” the survey research method has been applied. Under this survey the different tools and techniques has been applied which are basically questionnaire and personal interview. As a case study of problems and prospect of ICT implementation and development of digital library system of the college libraries of Barak Valley under total population of the colleges of 10 no’s of major colleges has been taken into account of this study. Basic research question of this study is how far libraries of selected research area developed in ICT and networking? Quantitative and Qualitative techniques also used wherever necessary in this study.

Data Source: Both primary and secondary data are used in this study programme. Journals article, conference/seminar papers, Books in this regard relating to the study area has been consulted.

Statistical Technique: Descriptive statistics of raw data collected from research field has presented in this study.

## **VI. Data Analysis And Interpretation**

Data analysis is a set of methods that are used to interpret data and convert it into useful and required information. Data analysis is used in all kinds of research whether it is a scientific research or any other commercial research. Data analysis is not only the lengthiest but also the most important part of a research. In order to analyse data the foremost requirement is to check the quality of data. This can be done by different methods like frequency counts, associations, normality and descriptive statistics. At the same time a researcher needs to check the quality measurement instruments as well [6].

The survey, which was taken among the ten leading Colleges of Barak Valley, Southern Assam, shows the following results: As per the determined field area of research the raw data collected from the Colleges which are presented in table 1 to 6.

**6.1. Status of ICT infrastructure Level of the College Libraries of Barak Valley:**

Name of the College	Total Nos of PC's	Total No's of Server	Printers	Scanners	Photocopier	Operating Software	Library Software	Power Back-up's
Gurucharan College, Silchar	20	03	01	Nil	01	Windows 7	SOUL 1.0	UPS
Karimganj College, Karimganj	03	01	01	Nil	01	Windows 7	SOUL 1.0	UPS/Generator/Inverter
Srikishan Sarda College, Hailakandi	04	01	03	02	01	Windows XP & 7	Exabyte Solutions	Generator/Solar Battery
Cachar College, Silchar	04	01	01	Nil	01	Windows 2000	SOUL 1.0	UPS/Generator
Rabindra Sadan College, Karimganj	07	01	02	Nil	01	Windows 8	NA	Generator
Women's College, Silchar	09	01	01	01	01	Windows 7	SOUL 1.0	UPS/Inverter
Janata College, Kabuganj, Cachar	05	02	01	01	01	Windows 7	SOUL 1.0	Generator
Nabin Chandra College, Badarpur, Karimganj	06	02	04	01	01	Windows 7	SOUL 1.0	Inverter
Radha Madhab College, Silchar	08	02	01	01	01	Windows XP	SOUL 2.0	UPS/Generators
MCD College, Sonai, Cachar	11	01	02	01	02	Windows XP	SOUL 1.0	UPS

**Table No. 1: ICT Infrastructures Level (Hardware and Software)**

Table no. 1 shows about the ICT infrastructure both hardware and software available to the college libraries of selected colleges. The data shows that all the colleges have computer. GC College library, Silchar have highest number of computers 20 no's where Karimganj College library have lowest number of computer 03 no's. All the college libraries have printers. In operating systems all college libraries uses Windows. Except S S College Hailakandi all colleges uses SOUL software developed by INFLIBNET.

**6.2. Networking Components and internet Connectivity types of the colleges.**

Name of the College	Internet Connectivity Type	Bandwidth	Service Provider
Gurucharan College, Silchar	Broadband	1mbps	BSNL
Karimganj College, Karimganj	Broadband	556kbps	BSNL
Srikishan Sarda College, Hailakandi	Broadband	556kbps	BSNL
Cachar College, Silchar	Broadband	556kbps	BSNL
Rabindra Sadan College, Karimganj	Broadband	1mbps	BSNL
Womens College, Silchar	Broadband	256kbps	BSNL
Janata College, Kabuganj, Cachar	Broadband	556kbps	BSNL
Nabin Chandra College, Badarpur, Karimganj	Broadband	256kbps	BSNL
Radha Madhab College, Silchar	Broadband	256kbps	BSNL
MCD College, Sonai, Cachar	Broadband	256kbps	BSNL

**Table No. 2: Internet Connectivity types and power backup systems.**

Table 2 shows about the internet connectivity and its details. In this matter all colleges uses BSNL broadband service with different bandwidths. Highest speed of internet connectivity of the colleges is maximum 1mbps and minimum 256 kbps.

**6.3. Libraries member of national network of India**

Name of the College	INFLIBNET	DELNET	CALIBNET	Any other's
Gurucharan College, Silchar	✓	X	X	----
Karimganj College, Karimganj	✓	X	X	----
Srikishan Sarda College, Hailakandi	✓	✓	X	----
Cachar College, Silchar	✓	X	X	----
Rabindra Sadan College, Karimganj	✓	X	X	----
Womens College, Silchar	✓	X	X	----
Janata College, Kabuganj, Cachar	✓	X	X	----
Nabin Chandra College, Badarpur, Karimganj	✓	X	X	----
Radha Madhab College, Silchar	✓	X	X	----
MCD College, Sonai, Cachar	✓	X	X	----

**Table No. 3: Associated Library Networks of the College Libraries**

The above table shows about the associated member's of national library networks. All the college libraries are the member of INFLIBNET. S. S. College, Hailakandi have additionally DELNET membership.

**6.4. Libraries joined in the consortium**

Name of the College	UGC Infonet	INDEST	N-List	Any other's
Gurucharan College	✓	X	✓	----
Karimganj College, Karimganj	✓	X	✓	----
Srikishan Sarda College, Hailakandi	✓	X	✓	----
Cachar College, Silchar	X	X	✓	----
Rabindra Sadan College, Karimganj	X	X	✓	----
Womens College, Silchar	X	X	✓	----
Janata College, Kabuganj, Cachar	X	X	✓	----
Nabin Chandra College, Badarpur, Karimganj	X	X	✓	----
Radha Madhab College, Silchar	X	X	✓	----
MCD College, Sonai, Cachar	X	X	✓	----

**Table No. 4: Consortium member Libraries.**

The above table shows about the consortium membership of the college libraries. All the colleges are the member of N-LIST (National Library and Information Services Infrastructure for Scholarly Content) of INFLIBNET. Three major colleges of each district Cachar, karimganj and Hailakandi are enjoying UGC-infonet e- journal consortium.

**6.5. Fund System of the libraries in ICT and digitization process**

Name of the College	UGC's Grant	Govt Grant	Library Fund from Students fee	PSU's and Other
Gurucharan College	✓	✓	✓	----
Karimganj College, Karimganj	✓	✓	✓	----
Srikishan Sarda College, Hailakandi	✓	✓	✓	----
Cachar College, Silchar	✓	✓	✓	----
Rabindra Sadan College, Karimganj	✓	✓	✓	----
Womens College, Silchar	✓	✓	✓	----
Janata College, Kabuganj, Cachar	✓	✓	✓	----
Nabin Chandra College, Badarpur, Karimganj	✓	✓	✓	----
Radha Madhab College, Silchar	✓	✓	✓	----
MCD College, Sonai, Cachar	✓	✓	✓	----

**Table No. 5: Fund System of the libraries in ICT and digitization process.**

The above table shows about the fund system of college libraries under this study. The all college libraries are getting funds towards overall development of the libraries. The funds are generally UGC and Govt's grant and student's fee collected in their admission. No other grants still getting from other sources in the development of ICT infrastructure and digitization process.

**6.6. Human resources survey**

Name of the College	Existence of Librarian	Qualifications of Librarian	Advance Training on ICT	Other professional/supporting staff strength
Gurucharan College	Vacant	NA	NA	05
Karimganj College, Karimganj	✓	MLISc	✓	03
Srikishan Sarda College, Hailakandi	✓	MLISc, NET	X	02
Cachar College, Silchar	✓	MLISc	X	02
Rabindra Sadan College, Karimganj	✓	MLISc, NET	X	02
Womens College, Silchar	✓	MLISc, PHD	✓	03
Janata College, Kabuganj, Cachar	✓	MLISc, M.Phil	X	02
Nabin Chandra College, Badarpur, Karimganj	✓	MLISc, PHD	✓	03
Radha Madhab College, Silchar	✓	MLISc	✓	02
MCD College, Sonai, Cachar	✓	MLISc, M.phil	✓	03

**Table No. 6: Human resources survey.**

The above table shows about the human resources available to the libraries towards activation of functions. Except 90% colleges have librarian with professional qualifications. 01 College(10%) still in vacant position. 50% college librarian's have professional training on ICT through INFLIBNET. All college libraries have 01 to 05 professional/Semi-professional/supporting staff with librarians.

## **VII. Findings & Suggestions**

After a critical analysis about the various problems and prospects of implantation of ICT and digitization of the selected College libraries of Barak Valley some major findings are given below...

- i. All the College's have more or less infrastructure level of ICT application in their libraries. In comparison to the establishment and geographical area colleges located in town area have better infrastructure level of development in ICT than the rural colleges.
- ii. The digitization process inaction by only one college library located at Silchar, namely GC College. All other college libraries still have to start this process.
- iii. From the above study it has been traced that all library have ICT infrastructures more or less in a position. But after the evaluative study it has been noticed the library housekeeping operations not fully operated. It means libraries have to complete automation system. INFLIBNET centre continuously supported to developments of library automation through SOUL. Cataloguing and OPAC systems of all the colleges are functioning properly without any hindrance.
- iv. In user's point of view the internet connectivity of few colleges are used only by the librarians in all purpose. Students are not getting the internet facility to search for other search purpose except using of OPAC due to insufficient of computers.
- v. The basic problems of ICT implementation is fund crisis and unavailable of proper trained manpower in the college libraries. The librarians are trained by INFLIBNET to operate SOUL software for housekeeping operations. They are still unable to get ICT based high level training option.

## **Suggestions**

As a suggestive measure of the current study towards development of ICT and library networking in the college libraries of Barak Valley, Southern Assam libraries towards achieving innovative services of current trends few recommendations are given below...

- i. Librarians and College authority can take innovative thoughts to create a fund for the development of ICT infrastructure in their colleges. Librarian and college authority can take initiative to collect fund from State Govt, some local bodies, Tea garden's, PSU's etc.
- ii. Most importantly the policy making is important in this matter. Librarian can take short term and long term action plan with proper support of college authority for the ICT development of the libraries.
- iii. Due to lack of management policy a few colleges have ICT infrastructure but innovative services are not functioning properly. In this regard college's librarian should take user orientation to their student as well as teacher community in a large scale. Sometimes special programmes can be taken with the support of Assam University library and other prominent publishers which are eager to give advertise to aware about their e-resources.
- iv. As a future prospect issue of the college libraries the librarian's and other professional staff should be given advance training in ICT or given to do ICT based courses as a carrier advancement scheme. The orientation and refresher courses of Academic colleges of UGC should be more emphasis on this issue.

Continuous effort of development in the field of ICT infrastructure with latest technological equipment and digitization with an innovative thought important College library of Barak Valley may be improved for the quality education purpose. A ray of hope will begin in the entire region of Barak Valley and North East India with effective teaching and learning process by implementation of new generation library and information systems and services.

## **VIII. Conclusion**

Present era of ICT (information communication, technology), Library automation & networking, library consortia, digitization and digital library concepts overwhelming all over the world. No one can deny the importance of sharing resources which are economic issues of development in this globalization period. As an interior area Barak Valley are not equally developed in comparison of other districts of Assam. The college libraries except two or three most of the colleges are not properly equipped with latest information and communication technology. In few colleges computers are there but without functioning which should be changed. An innovative idea and proper policy making by the college authorities are very much important subject concern which are briefly discussed in this research study. As a conclusion report there are so many issues and challenges in implementation of ICT and digitization process of library development which can be supported by helping of each other through collaboration. Hopefully College libraries of Barak Valley libraries

can be changed to update its status through establish with latest ICT infrastructure system in connection with national development.

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