Application of ICT in the College Libraries of Paschim Bardhaman District, West Bengal: A Study

Sajal Mandal

Librarian, Pandaveswar School of Pharmacy
Email: sajalmandal089@gmail.com

Abstract

This study is an attempt to highlight the impact of ICT on the college libraries of Paschim Bardhaman district. Rapid advances in IT have provided new learning methods and environments for both the library and library users. The use of technology has changed our ideas. It will also try to analyse librarians' perception of the different IT tools and lastly study the problems faced by the librarian in using IT infrastructure. This study finally gives a scenario of the college libraries of Paschim Bardhaman District.

Keywords: *College library, ICT, Paschim Bardhaman District, Emergence, Repackaging, Product and Service, Information and Communication.*

Introduction

The application of Information and Communication Technology (ICT) in college libraries has revolutionized the way knowledge is accessed, managed, and disseminated. Through ICT tools such as integrated library systems, online databases, and digital repositories, college libraries can efficiently organize vast collections, provide seamless access to resources, and offer interactive learning experiences. ICT enables users to search, retrieve, and utilize information resources remotely, facilitating research endeavours and supporting academic success. Additionally, ICT implementation enhances library services, promoting digital literacy, collaboration, and innovation within the academic community. Overall, ICT plays a pivotal role in modernizing college libraries and enriching the educational landscape.

Need for use of ICT in college libraries

Information is increasing every day on various levels and in various subjects. There is a great demand to provide such information very quickly and accurately.

The following are the essentials for integrating ICT applications in college libraries, ensuring efficient information dissemination and enhanced user experiences,

i. Participation in network programming and resource sharing has become integral across various sectors, driving collaboration and innovation while fostering interconnectedness and efficiency in diverse environments.

ii. To cover geographical and other barriers to communication.

iii. To avoid duplication of works in library operation.

iv. Capacity to handle any amount of data and information.
v. Speedy processing of information and its retrieval.
vi. To save space and store large qualities of nonconventional information and,
vii. Flexibility in information search.

Objectives of the study

i. To find out the present status of the application of ICT in the college libraries of Paschim Bardhaman district.
ii. To know the problems faced by college libraries for rendering ICT-based services in different areas.
iii. To find out the impact of IT on library services and perception by the students and faculty.

Literature review

A review of the available literature on the subject has been attempted.

Brahma (2014) discussed the challenges and opportunities of library automation. Assam's Bodoland Territorial Council was the subject of the study. The aim of improving the present system was also outlined.

Khan (2013) described the collection and library services of various universities in J&K and Delhi. This study also demonstrated the use and impact of ICT in the collection's development.

Biswas and Akhter (2017) describe an application of ICT in college libraries in the Nadia district.

Natarajan (2012) in his study on "exploring the e-resources for educational use" discusses electronic resources and their different types. The role of library professionals in making e-resources available to different types of user communities is discussed in detail.

Kumar and Tripathi (2018) studied how instructors, researchers, and students' access, pursue, and use digital books at Jawaharlal Nehru University in Delhi, India. The study found elements that either encourage or discourage e-book use in academic libraries.

Becker (2000) also investigated the relationship between techniques, knowledge, and a set of teachers' skills connected to the use of information and communication technologies in the library.

According to Olise (2010), information and communication technologies (ICTs) are emergent technologies that cannot be ignored in Africa. He also identified ICTs as important tools that must be used to achieve and sustain development.

Rattan (2007) discusses how ICT has changed the traditional static libraries into live services which are now functional 24x7 discarding the barriers of boundaries.

Scope and Coverage

Paschim Bardhaman district is an urban mining-industrial region in West Bengal. The headquarters of the district is Asansol. It was founded on 7th April 2017 with the bifurcation of the erstwhile Bardhaman district as the 23rd district of West Bengal. The covering area of the district is 1603.17 square kilometers and the total population is 2,882,031. There are a total of approximately 31 colleges in Paschim Bardhaman district, with this study focusing specifically on the 13 government/government-aided colleges affiliated with Kazi Nazrul University within the district.

Methods use

The study comprises a total sample size of 70 respondents from 100 questionnaires distributed, selected through random sampling. Both qualitative and quantitative data were gathered through face-to-face interviews conducted with various librarians across college libraries in the Paschim Bardhaman district, employing methodological rigor and appropriate techniques for paper preparation. Paschim Bardhaman has total 13 govt. and govt. aided college. They are,

1. Asansol Girls College (AGC)
2. Banwarilal Bhalotia College (BBC)
3. Bidhan Chandra College (BCC)
4. Deshbandhu Mahavidyalaya (DBM)
5. Durgapur Government College (DGC)
6. Kazi Nazrul Islam Mahavidyalaya (KNIM)
7. Khandra College (KC)
8. Kulti College (KTC)
9. Michael Madhusudan Memorial College (MMMC)
10. Durgapur Women's College (DWC)
11. Pandaveswar College (PC)
12. Raniganj Girls College (RGC)
13. Triveni Devi Bhalotia College (TDBC)

Data analysis and findings

A college is an institution of higher education that imparts the world of knowledge, while the college library plays an indispensable role in supporting the educational program. The basic function of the college library should be to assist the needs and requirements of teachers, students, and staff towards reading consultants of study. ICT has a tremendous impact on various aspects of a college library.

Table I indicates that the computerization of college libraries began only in the last decade, with some libraries also exhibiting a notably low number of subscribed journals. Maximum colleges have been registered N-List program provided by INFLIBNET.

Name of the college	Estd.	Year of computerization	No. of computer
AGC	1950	2007	12
BBC	1944	2008	5
BCC	1961	Nil	6
DBM	1973	2021	3
DGC	1970	2018	9
DWC	1980	Nil	-
KNIM	1981	2013	2
KC	1981	2018	3
KTC	1986	2009	7
MMMC	1996	Nil	7
PC	2005	Nil	4
RGC	1980	Nil	5
TDBC	1957	2016	14

Table I: Year of computerization in the college libraries

Collection of the college libraries

Name of the college	Books	Reference Books	e-books	Journals	e-journals
AGC	35000	1200	X	7	N-list
BBC	49500	1350	X	12	N-list
BCC	36000	1030	X	Nil	N-list
DBM	23500	730	X	Nil	N-list
DGC	80000	1578	X	Nil	N-list
DWC	20308	797	X	14	N-list
KNIM	14000	690	X	7	X
KC	18000	768	X	19	N-list
KTC	16674	780	X	Nil	N-list
MMMC	20000	958	X	Nil	N-list
PC	13700	856	X	Nil	N-list
RGC	27120	1025	X	14	X
TDBC	97187	1780	X	38	N-list

Table II: Total Collections of College Libraries

Manpower of the college libraries

Name of the college	Total staff	Professional (Librarian)	Non-professional
AGC	6	3	3
BBC	4	3	1
BCC	6	1	5
DBM	2	1	1
DGC	5	1	4
DWC	4	1	3
KNIM	2	1	1
KC	3	1	2
KTC	3	1	2
MMMC	4	1	3
PC	3	1	2
RGC	5	2	3
TDBC	10	2	8

Table III: Strength of library professionals in the college libraries

Table III 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 work. In Deshbandhu Mahavidyalay and Kazi Nazrul Islam Mahavidyalaya, the staff strength is very low as per requirement.

Table IV demonstrates that currently, the majority of libraries have adopted Koha software, while a few have opted for SOUL software as their library management system. Asansol Girls College the progress of work is in the very initial stage.

Library software used in the surveyed colleges

Name of the college	Koha	SOUL	Others
AGS	✓	X	X
BBC	X	SOUL 2.0	X
BCC	X	SOUL 3.0	X
DBM	✓	X	X
DGC	✓	X	X
DWC	✓	X	X
KNIM	X	SOUL 2.0	X
KC	✓	X	X
KTC	X	SOUL 2.0	X
MMMC	✓	X	X
PC	✓	X	X
RGC	✓	X	X
TDBC	✓	X	X

Table IV: Different software used in the college libraries
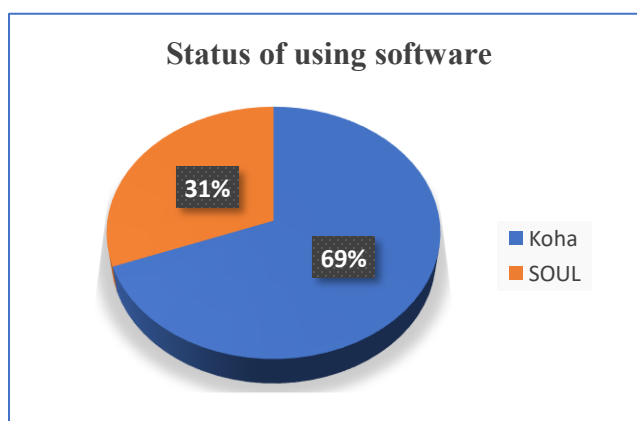
Chart 1: Status of using software

Name of the college	Xerox	Printer	Fax	Internet	Barcode
AGC	No	4	No	Yes	No
BBC	1	1	No	Yes	No
BCC	1	3	No	Yes	Yes
DM	1	2	No	Yes	Yes
DGC	No	2	No	Yes	No
DWC	No	1	No	Yes	Yes
KNIM	1	1	No	Yes	Yes
KC	1	1	No	Yes	Yes
KTC	No	2	No	Yes	No
MMMC	1	3	No	Yes	Yes
PC	No	1	No	Yes	Yes
RGC	No	2	No	Yes	Yes
TDBC	1	8	No	Yes	Yes

Table V: Using the Tool of IT in the College Libraries

Library infrastructure facilities in surveyed colleges

Nowadays infrastructural facilities in college libraries are very important to provide better services for users. Information is increasing day by day, so equipment is very essential to fulfil the needs of the user. Table V shows using the tool of IT in the college libraries. The integration of IT in college libraries has transformed access to resources, improved services, and enhanced convenience for students and faculty, fostering positive perceptions and facilitating efficient research and learning. This table shows that most of the college libraries lack the minimum basic facilities such as xerox, internet, etc. In most cases, the internet and xerox machines are attached to the college office only. Currently, most libraries use barcode facilities for user services.
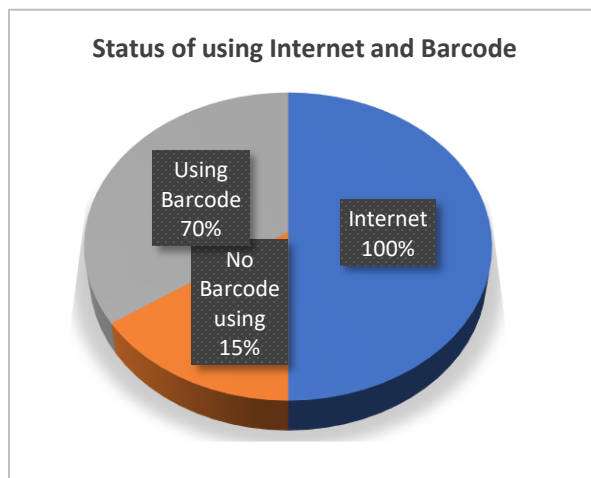

Chart 2: Status of using Internet and Barcode

Reasons for insufficient application of ICT in services

From the study, it is found that there are various reasons behind the insufficient application of ICT in the college libraries in the Paschim Bardhaman district of West Bengal.

i) Inadequate financial resources.
ii) Lack of sufficient manpower.
iii) Non-availability of IT-trained personnel.
iv) Inadequate management support.
v) Lack of proper guidelines and planning for automation of library activities.
vi) Erratic power supply.
vii) Non-availability of consultancy services, etc.

Conclusion

In conclusion, the application of Information and Communication Technology (ICT) in college libraries is essential for enhancing access to information, improving library services, and fostering academic success. Through the integration of ICT tools such as online databases, digital catalogues, and virtual learning environments, college libraries can better serve the needs of students, faculty, and researchers. ICT enables efficient management of library resources, facilitates remote access to information, and promotes collaboration and innovation. As technology continues to evolve, embracing ICT in college libraries becomes increasingly crucial for staying relevant in the digital age and providing users with the resources and support they need to excel in their academic pursuits.

Suggestions

It has been observed that the college libraries of West Bengal can give better services through ICT-based services to its users if the said problems are solved. Considering the importance of college libraries for the student community the govt. of West Bengal should release a large amount of money only for the infrastructure development of the college libraries. The UGC should frame a different guideline for granting aid in different areas exclusively towards rural college libraries of West Bengal.

References

Ahmadi, S., Keshavarzi, A., & Foroutan, M. (2011). The application of information and communication technologies (ICT) and its relationship with improvement in teaching and learning. *Procedia – Social and Behavioral Sciences*, *28*, 475–480. doi:10.1016/j.sbspro.2011.11.091

Biswas, S. K., & Akhter, M. Y. (2017). ICT application in the college libraries of Nadia District in West Bengal: A study. *International Journal of Applied Research*, *3*(6), 377–381. Retrieved from https://www.allresearchjournal.com/archives/2017/vol3issue6/PartF/3-6-83-695.pdf

Brahma, S. (2014). *Problems and prospects of library automation in Bodoland territorial council area Assam*. INFLIBNET. Retrieved from https://oatd.org/oatd/record?record=oai%5C%3Ashodhganga.inflibnet.ac.in%5C%3A10603%5C%2F39977

Fu, J. S. (2013). ICT in education: A critical literature review and its implications. *International Journal of Education and Development Using Information and Communication Technology*, *9*(1), 112–125. Retrieved from http://files.eric.ed.gov/fulltext/EJ1182651.pdf

Khan, M. A. (2013). The ICT-based library and Information services: A case study of B-Schools in Delhi and NCR region The ICT. *ResearchGate*. Retrieved from https://www.researchgate.net/publication/272354602_The_ICT_based_library_and_Information_services_a_case_study_of_B Schools_in_Delhi_and_NCR_region_The_ICT_based_library_and_Information_services_a_case_study_of_B-Schools_in_Delhi_and_NCR_region

Kondamudi, N. R., Kumar, S., & Tripathi, M. (2018). Users' perceptions of e-books at Jawaharlal Nehru University, New Delhi: A case study. *DESIDOC*

Journal of Library and Information Technology, 38(4). doi:10.14429/djlit.38.4.12993

Kumar, B. T. S., & Biradar, B. S. (2010). Use of ICT in college libraries in Karnataka, India: A survey. *Program*. Electronic Library and Information Systems, 44(3), 271–282. doi:10.1108/00330331011064267

Lata, N., & Sonkar, S. K. (2023). Use of information communication technology (ICT) in library and information science education and research. *DESIDOC Journal of Library and Information Technology*, *42*(6), 397–403. doi:10.14429/djlit.42.6.18371

Mondal, A. K., & Bandyopadhyay, A. K. (2010). Application of ICT and related manpower problems in the college libraries of Burdwan. *DESIDOC Journal of Library and Information Technology*, *30*(4), 44–52. doi:10.14429/djlit.30.459

Natarajan, M. (2012). Exploring the E-resources for educational use. *International Journal of Information Dissemination and Technology*, *1*(4), 193–196. Retrieved From https://www.ijidt.com/index.php/ijidt/article/download/33/33

Olise, F. P. (2010). Information and communication technologies (ICTs) and sustainable development in Africa: Mainstreaming the Millennium Development Goals (MDGs) into Nigeria's development agenda. *Journal of Social Sciences*, *24*(3), 155–167. doi:10.1080/09718923.2010.11892851

Reid, S. (2002). The integration of ICT into classroom teaching. *Alberta Journal of Educational Research*, *48*, 30–46.

Shamprasad, P. M., & Satyanarayana, K. V. (2015). Internet of Things and libraries. *Annals of Library and Information Studies* (ALIS), *62*(3).

Stephens, K. K., & Rains, S. A. (2011). Information and communication technology sequences and message repetition in interpersonal interaction. *Communication Research*, *38*(1), 101–122. doi:10.1177/0093650210362679

Subba, S., & Das, S. (2019). ICT infrastructure in College Libraries of Darjeeling District of West, Bengal, India: A Survey. *International Journal of Research in Social Sciences*, *9*(1),476–490. Retrieved from https://www.indianjournals.com/ijor.aspx?target=ijor:ijrss&volume=9&issue=1&article=032