



**INFORMATION AND COMMUNICATION TECHNOLOGIES, LITERACY MODELS  
ROLE OF LIBRARIAN**

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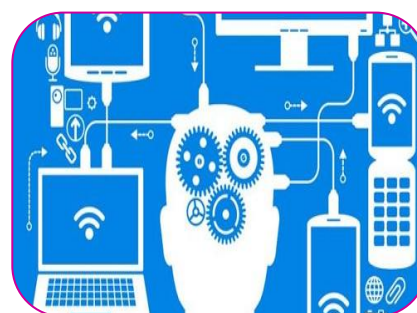
**ABSTRACT :**

*The librarian is in charge of finding, acquiring, disseminating, and keeping track of a wide range of information resources. It could involve searching databases, monitoring Internet newsgroups, interlibrary loans, or the upkeep of a computerized library information system. Information can be found, stored, retrieved, and disseminated in libraries thanks to ICTs. ICT devices, for example, Compact disc ROM, email are utilized in libraries for scattering of data. Using ICT, information and communication technologies are also used to digitize information resources, which entails converting print resources into electronic formats. Digital collections, databases, library automation systems, and software application (Operating System, Office, etc.) were among the listed ICT skills. programming, evaluating software and hardware technologies, designing and maintaining websites, and numerous other ICT-related activities In essence, ICT is used in libraries to provide a variety of services, including access to OPAC, library databases, automated material circulation, and others. A curator is responsible for gathering, coordinating, and giving library assets like books, movies, and sound records. They work in schools, museums, public libraries, and other settings. They are responsible for issuing resources, cataloging books, and regularly conducting audits. The Innovation and Data Education capacity centers around the capacity to explore, gather, make due, change, and trade data utilizing advancements, for example, internet browsers, email, word handling, and calculation sheet programming.*

**KEYWORDS :** *Online Public Access Catalogue, Digital Library, Electronic Library, CABI Publishing, Library Professional.*

**INTRODUCTION**

The identification, collection, storage, processing, and dissemination of information are all made easier by information and communication technologies (ICT). ICT is being used by professionals in information science and libraries to keep up with the problem of too much information. The most distinctive feature of the information age is the advantage of instant access to digital information. The authors of this paper attempted to emphasize the modern libraries and information centers, the various components of providing digital information services, and the role of ICT in modernizing libraries. In Bangladesh, the utilization of ICT is yet to take off. The Internet facility cannot effectively spread out in the absence of robust communication. The primary impediment to its expansion at the organizational, local, and national levels is financial constraints. As a result, the parent organization's support for the implementation of ICT facilities in libraries is insufficient. The majority of Bangladeshi libraries lack



computer resources. Libraries still rely heavily on print media for information. However, things are changing, and in order to deal with the new ICT used in libraries and information centers, librarians need to be prepared for anything. The purpose of this paper was to emphasize the anticipated shift in user services in libraries and information centers and how to adapt.

Data Proficiency is the most common way of knowing when and why data is required, where to track down it, and how to assess, use and impart it in a moral way. It's the combination of all the skills needed to use information to the fullest extent. The term data proficiency has been utilized as aggregate term covering all or a few of skill levels, viz., hyper-literacy, information technology literacy, interactive literacy, Internet literacy, library literacy, media literacy, multiple literacy, network literacy, oral literacy, and visual literacy, among other terms, are all forms of computer literacy. Not only information users, but also librarians and other professionals who work with information also need to cultivate and uphold these literacies throughout their lives.

Meaning OF Data Innovation (IT) Data Innovation (IT) has been differently explored by numerous researchers. Therefore, Data. Innovation is viewed as in the library to be worried about procurement, handling, stockpiling and. textual, numerical, visual, and verbal dissemination of information.

Since the beginning of time, the library has been regarded as a service-oriented organization that meets the information needs of its patrons and has been a major contributor to human civilization. The majority of transactional and other important services are performed digitally or electronically by professionals in Library & Information Science (LIS), thanks to the introduction and implementation of Information & Communication Technology (ICT) in various library activities. The primary point of this paper to investigate information on ICT abilities among library experts including significance of ICT proficiency for them. It also talks about the different kinds of ICT literacy among library professionals and explains why it's important for library development and self-evaluation. As a rule, ICT proficiency models are useful for library experts to create mindfulness about ICT instruments and methods, choice of library robotization programming. It also focuses on the various types of literacy, such as software skills, resource literacy, and hardware skills.

### Need and Objectives of study

Utilizing ICT and electronic information resources like e-books, academic libraries make numerous contributions to educational and research activities; Web-based information services as well as online journals and databases Libraries now make use of a variety of ICT-based applications and services to facilitate the collection, storage, and dissemination of knowledge. In libraries, the Internet, Web 2.0, and social media are increasingly being used as tools for sharing information. Additionally, they are utilized in libraries to facilitate connections between library patrons and staff members. Many examinations have been finished in evolved nations to explore the effect of these ICT-put together devices with respect to libraries and library benefits, no exploration has been led on the utilization of various sorts of ICT-based apparatuses in scholarly libraries in India. Haneefa (2007) says that libraries buy expensive ICT equipment but may not use it to its full potential. This is the primary concern of libraries worldwide. The situation may be caused by a number of factors, including a lack of qualified and trained library staff. In light of these facts, an effort has been made to investigate how academic libraries in India utilize ICT-based tools and services.

### Objectives of the Study

1. to be aware of the various methods by which LIS professionals acquire computer skills.
2. to determine the ICT abilities needed by LIS professionals to carry out Library and Information Services in an ICT setting.
3. to identify issues with library software management.

A university's academic library is widely regarded as its heart, serving as a crucial support system for the institution's various academic requirements, including research, instruction, and learning. Libraries of all kinds have benefited from the development and application of a variety of information and communication

technology (ICT) methods to meet the needs of their patrons, improve transaction efficiency (acquiring, organizing, storing, retrieving, and disseminating information), and ensure the safety of their surroundings. The ICT has changed our way of thinking of serving the client by LIS experts, because of the progression of ICT application libraries are giving the two prints as well as electronic and ICT based data administrations.

### Technology and Information Literacy

The ability to research, collect, manage, transform, and exchange information using technologies like web browsers, email, word processing, and spreadsheet software is the primary focus of the Technology and Information Literacy capability. In today's academic and work environments, it is essential to be able to comprehend and utilize technology to acquire and apply information (ACT, 2014b; Relationship of School and Exploration Libraries, 2000; Autor and others, 2003; 2012 Partnership for Skills for the 21st Century). The Survey of Adult Skills did collect representative data on US problem-solving skills in technology-rich environments, so it is not surprising that technology and information literacy (TIL) has been a growing concern over the past decade. Many nations have identified these skills as necessary for future occupations. Less than half of US long term olds scored over a fundamental capability level, showing serious areas of strength for a for consideration in this space Utilization of innovation to impart is vital to everyday undertakings in a larger part of occupations Innovation is a significant go between in many investigations of group execution on the grounds that most of group correspondence is typically led through email, visit, or remote gathering programming As of now, levels of day to day innovation use at work are emphatically connected with enrollment in more elevated level specialized, administrative, and leader positions. This suggests that a lack of familiarity with these technologies can obstruct participation and, ultimately, advancement in numerous ways.

Increases in academic achievement have been linked to instruction in and use of technology. For instance, Amiri (2009) found that at-risk middle and high school students saw significant increases in test scores in reading, writing, and mathematics following a four-week program of instruction in TIL skills and a year of computer experience. Higher grades in college courses are also frequently linked to frequent use of classroom technology (Huffman & Huffman, 12). Fitzgerald (2004) also found that first-year students' information literacy skills were highly valued by college instructors. According to Pew (2008), access to technology is strongly linked to household income and educational attainment. This demonstrates both the significance of technology in the workplace and the danger of a "digital divide" between those with and without access to technology (Law, 2006; Raizen, 1997). For some students, the only place they can use technology is at school; As a result, education plays a crucial role in ensuring that all students are familiar with technology and have access to it.

### Need for Information

Proficiency Data is the essential necessity for each human action and it is significant as food, air and water. Data in itself has no worth, however its worth lies in its correspondence and use. The following factors may indicate that information literacy is required.

- (i) The information revolution's rapid increase in information flow;
- (ii) The emergence of new communication and information technologies;
- (iii) Tremendous assortment of data sources;
- (iv) Library morphology shifts;
- (v) The spread of information widely;
- (vi) Expansion in number of clients; and (vii) study of interrelated and complex issues.

### objectives of Information Literacy

The Service of Training, Science, Sports and Culture, Japan has characterizes the accompanying targets of data education (Unknown, 1991):

(i) Information judgment (evaluation), information selection, organization, and processing, as well as the ability to create and communicate information;  
 ii) Understanding the characteristics of the information society and its effects on humans and information users; 392 (iii) Understanding the significance of information and taking responsibility for it; and (iv) Acquiring knowledge of the fundamentals of information science as well as basic computer and information device operation skills.

In general, the development of skills and competencies that enable a client: are among the other objectives of an information literacy program.

- (I) to perceive a data hole;
- (ii) to develop alternative methods for closing the information gap;
- (iii) to choose a plan;
- (iv) to implement a plan for finding and retrieving information;
- (v) to evaluate a strategy's efficacy;
- (vi) to acknowledge the information and inspiration sources; furthermore,
- (vii) to store the data for sometime later.

### Scope of Information Literacy

**A variety of literacy skills are part of information literacy. The range of literacy levels could be:**

- (i) Standard Literacy: to write and read;
- ii) Computer Knowledge: These are the points of contact between information and end users, and understanding and using computers requires them.
- iii) Media Knowledge: to use and comprehend various media that store networked data;
- (iv) Network Knowledge: Network proficiency for library clients comprises of two viewpoints: skills to find, select, evaluate, and use networked information; knowledge of networked information; also,
- (v) Conventional Data Proficiency: to effectively locate, select, evaluate, and utilize information. vii) Knowledge of the Visual to view and comprehend the data, and (vii) Web Literacy: to find, select, recover and utilize the data from web.

### Benefits of Information Literacy

The following are some of the benefits of information literacy:

- (i) The expansion of knowledge through substantive knowledge creation operations.
- (ii) Conversion of information and data into knowledge.
- (iii) Using knowledge and information to solve problems in an appropriate and critical manner.
- (iv) Improvement of the decisive reasoning.
- (v) Including validated data in a person's or company's knowledge base.
- (vi) An appreciation for lifelong learning and motivation for self-directed learning.

### Information Literacy Models

A review of the literature that has been published all over the world, particularly in developed nations, in the form of documentary sources, conference and seminar proceedings, case studies about universities, institutes, countries, and websites, standards, policy guidelines, and reports are encouraging signs for a developing nation like India and even other developing nations to catch up to the mainstream. Gigantic exploration has been done in the created nations particularly in USA, UK, New Zealand, Australia and Mexico. It has been observed that professional organizations and universities in developed nations have collaborated extensively in the development of standards and performance indicators to assess students' information literacy competence.

Webb and Powis (2004) claim that Eisenberg and Berkowitz came up with the Big Six Skills model for information literacy in the year 1990. The Huge Six Abilities are a 'general critical thinking way to deal with library and data guidance'. The abilities are process based and understand a consistent request:

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- (i) Assignment definition;
  - (ii) Data looking for systems;
  - (iii) Accessibility and location;
  - (iv) Making use of data;
  - (v) Combination; and
  - (vi) Assessment.

### **Role of Librarians**

Data and Correspondence Advancements have changed the total situation in libraries. The library is now the center of resource-based learning, and as educational paradigms shift, so does the librarian's position. The shift from text-based learning to resource-based learning will result in a greater demand for a wider range of media resources, both print and non-print, as well as a greater use of library materials. Information is now a major commodity in the economy. The librarian is in charge of finding, acquiring, disseminating, and keeping track of a wide range of information resources. It could involve searching databases, monitoring Internet newsgroups, interlibrary loans, or the upkeep of a computerized library information system. Management expertise and information literacy are required for each of these tasks. To use information effectively, every citizen must be educated. By teaching people information skills at all levels of education, libraries and librarians contribute significantly to the education of individuals for effective and efficient information use, enabling them to become informed citizens of the nation. Good literature that is both age-specific and age-appropriate must be identified and chosen by librarians. They need to look all the more too on the web and other electronic sources to meet the data needs. Acquisitions and determination models take on completely new significance while thinking about admittance to online administrations. When applied to websites, traditional metrics for evaluating materials are of little use. New technologies and how they are used in the classroom and resource center lead to the development of new paradigms for selection and evaluation. When resource-based programs are implemented, librarians play a crucial role. Because they have the expertise and knowledge to teach these skills, they are able to create a curriculum for information literacy that is tailored to the capabilities of readers. They have extensive resources across a wide range of fields and are leaders in emerging information technologies. They have a context for how to use new tools like the World Wide Web because they have used tools for finding information. They must accept that they are effective knowledge managers and educators. Today, librarians are in the best position to lead the effort to make the community more information literate.

### **ICT AND ACADEMIC LIBRARIES: IMPACTS.**

Oyedun (2007) characterizes scholarly libraries as those libraries that are primarily found in tertiary organizations, they are laid out to help picking up, educating and research processes. Over the beyond 27 years, scholastic libraries have been impacted by changes in data and correspondence innovation. The pace of changes is as yet advancing around here. The presentation of different data innovation (ICT) patterns has prompted revamping, change in work examples, and interest for new abilities, work retraining and renaming positions. Innovative headway of the beyond a quarter century, for example, the electronic data set, online administrations, CDROMs and presentation of web has drastically changed admittance to data. According to Rana (2009), ICT holds the key to modernizing information services successfully. Although information and communications technology (ICT) can be used for a variety of purposes, its primary application is the conversion of existing paper-based records throughout the entire storage, retrieval, and dissemination process. Every aspect of academic library work has been affected by ICT, particularly library collection development strategies.

ICT presents a potential chance to offer some benefit added data administrations and admittance to a wide assortment of computerized based data assets to their clients. Additionally, academic libraries are implementing management information systems, developing institutional repositories of digital local content, automating their core functions, implementing efficient and effective libraries cooperating and

sharing resources, and digital libraries: and begin ICT-based programs for library patrons' capacity building. ICT has introduced embedded librarianship, a unique library service that provides all school departments with online products and journals primarily for their faculty, such as AGORA, in some academic libraries. A password is given to the concerned faculty to access it. Academic libraries also have access to the Directory of Open Access Journal (DOAJ), the African e-journal Project (AEJP), and other e-journals.

Conventional LIS, such as OPAC, users services, reference services, bibliographic services, current awareness services, document delivery, interlibrary loan, audio visual services, and customer relations can be provided more efficiently and effectively using ICT because they offer convenient time, place, cost effectiveness, faster and most up-to-date dissemination, and end users' involvement in the library and information services process. Information and communication technology (ICT) has brought about unprecedented changes and transformations to academic library and information services. Changes in the format, content, and method of production as well as the content and method of production and delivery of information products characterize the impact of ICT on information services. New tools for information dissemination, a shift from a physical to a virtual service environment, the demise of some traditional information services, and the emergence of innovative web-based services have all contributed to the internet's rise to prominence as the largest repository of knowledge and information.

### Impact of ICT on Libraries and Librarians

PC has gotten another effect on the library and data utilization. Information technology has made it easier for librarians to provide high-quality, value-added information services and to expand remote access to international information resources. The highly advanced information technology of today makes it easier to store a lot of data or information in a small space. Our conception of the functions of a traditional library and a modern information center is being transformed by information technologies, which promise quick retrieval of stored information. Modern information and communication technology (ICT) is affecting a variety of aspects of libraries and the information profession. Recent technological advancements have significantly altered the mode of library operations and services. Digital information sources and digital media are replacing and increasingly taking the lead in information storage and retrieval thanks to advances in ICT and widespread use of ICT. The true rules of library science—"Every reader his or her book/information" and "every book, its reader"—are also made by ICT. Save the hour of the peruser', 'Library is a developing living being'. ICT breaks down the distance barrier, reduces the amount of time required, and ensures that the right information reaches the right reader at the right time thanks to its abundance of information sources, rapid transmission speed, and ease of access. Additionally, it meets the library's need for collection development and grows it. It is actually a phenomenal instrument for the Library data focuses.

In educational settings, librarians strive to provide both physical and intellectual access to recorded information. Since computerized assets comprise a huge piece of this data, custodians need to give express consideration to the viable recovery and utilization of these resources. To be more specific, users ought to be able to comprehend not only the information itself but also the medium through which it is communicated. Information and communication technology (ICT) literacy encompasses these skills.

### CONCLUSION

In developed nations, the idea of information literacy has been extensively discussed and implemented in national curricula, tertiary non-formal education, and lifelong learning. Although librarians are well-equipped to teach these skills, the main obstacle to promoting the Information Literacy program in developing nations like India is a lack of public awareness of the issue of information illiteracy. Different hindrances in advancing data regardless of whether data searchers can figure out the sources, they won't be in that frame of mind to shape the pursuit methodologies, which are important to make the applicable ventures. Without the information literacy concept, it would be impossible to effectively present and communicate the data and findings, and they would not be able to comprehend what is appropriate for the

circumstance. The participants' willingness to cooperate with one another in a "give and take" manner will be crucial to the network services' successful implementation. In addition, the Indian rural population must not be overlooked when spreading the idea of information literacy. In order to help the villagers become information literate, efforts should be made to develop the community libraries and information centers in the villages through collaboration with rural public libraries.

As a result of the above discussion, it was concluded that in the age of information technology, LIS professionals' roles have evolved from those of book custodians to those of digital information resource providers. LIS professionals are well-equipped with ICT infrastructure and receive appropriate ICT training in order to provide effective information services. Additionally, they must have the necessary knowledge and abilities to use the appropriate resources to provide library services. Library experts should know about all the ICT instruments and quest procedures for looking, arranging, and spread of data. Models of ICT literacy are useful for raising awareness of ICT tools, selecting library automation software, performing a quick search of e-resources or databases, and searching online information. The fact that the majority of information is now available in electronic format is one of the main reasons why library professionals require ICT literacy.

## REFERENCES

1. "Framework for Information Literacy" (PDF). Association of College & Research Libraries.
2. Information Literacy Defined, alternate definition - In the Library with the Lead Pipe.
3. Tilwala, Khushbu; Myers, Michael D.; Andrade, Antonio Díaz (2009). "Information Literacy in Kenya". *The Electronic Journal of Information Systems in Developing Countries*.
4. Gregory, Lua (2017). "Critical Information Literacy in Practice: A Bibliographic Review Essay of Critical Information Literacy, Critical Library Pedagogy Handbook, and Critical Literacy for Information Professionals".
5. Chartered Institute of Library and Information Professionals (2004), quoted in Open University, *Succeeding in Postgraduate Study*:
6. Smith, Lauren (24 November 2013). "Towards a model of critical information literacy instruction for the development of political agency"
7. "Standards for the 21st Century Learner" (PDF). American Association of School Librarians. 2007.