

ANALYSIS OF THE FIVE LAWS OF LIBRARY SCIENCE AND THE ADOPTION OF TECHNOLOGY

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ABSTRACT

The five laws of library science play an important role in the organization of library resources, service delivery and the transformation of the library from traditional to modern day library. Each law, though brief but has a deeper meaning when properly analyzed. For instance, the fifth law dwells on the growing nature of the library. It is certain that the library is not a living organism that grows but, its staff, resources, mode of services and the adoption of Information Technology goes a long way to actualize the five laws of library science. Information Technology has provided facilities for the free and fast flow of information to users. The adoption of technology made the assessment of information limitless through networks likes Internet. The adoption of Information Technology (IT) as a worldwide information technology is the modern science of information gathering, storage, processing and dissemination. Hence, IT implies an assemble of technologies which covers computer and storage technologies, to store and processing information known as information processing, linked together with telecommunication technologies, which are capable of transmitting information to distances. Information technology covers sciences of data or all aspects of arts to produce information.

Keywords: *S. Ramamrita Ranganathan, Five laws of library science, Technology Integration, Application to modern day libraries*

INTRODUCTION

The Five Laws of Library Science seem very important in the present-day libraries. The five laws of library science were the first initiative toward placing library work on a scientific basis by Ranganathan, the first librarian of Madras University in 1924. It provides basic principles from which all library practices could be deduced in order to be effective and efficient in-service delivery. The five laws of Library Science conceived by the Father of Library Science are called the set of norms, percepts, and guides to good practice in librarianship. Dr. Shiyali Ramamrita Ranganathan conceived the Five Laws of Library Science in 1924. The statements embodying these laws were formulated in 1928. These laws were first published in Ranganathan's classic book entitled Five Laws of Library Science in 1931. S.R. Ranganathan invented the term Library Science and proposed his five laws of librarianship which serves as guide for modern day libraries. He believed that all human activities were susceptible to analysis using the scientific method and that such a careful examination of the phenomena of library work could lead to the formulation of empirical "laws" as emphasized by Michael Gorman (1998) in his book, *Our Singular Strength*. One of the outstanding things about Ranganathan's Five Laws is the depth of meaning compressed into a few words. These laws really state that the focus of the library is to serve the community. In order for the laws to be fully operational, he further developed a system of library classification which made the five laws to be effective. The duty of the library is to fulfill the needs of the community members, not simply to keep or preserve the materials. Hence, the library serves as instrument of social change through information dissemination. These laws have become a foundation of library thought:

First Law – "Books are for use"
 Second Law – "Every reader his/her book"
 Third Law – "Every book its reader"

Forth Law – “Save the time of the reader”

Fifth Law – “Library is a growing organism”

Lynn and Faniel (2015) reordered Ranganathan’s five laws of library science showing the difference in notions of ‘book’ and ‘reader’, which have expanded and are becoming increasingly more and more complex. The application of Ranganathan’s five laws to the present situation show clear difference between the period in which Ranganathan and Dewey worked and the current nature of information environment in which we work today. We have moved from an era of content scarcity to one of incredible abundance and diversity, which is being contributed to by a multitude of channels and contributors. These differences are at the center of what has changed the interpretations of the five laws as shown in tables 1, 2, and 3 below.

Table 1. Ranganathan’s five laws: Original and new conceptions in the current Environment

First Law	Books are for Use	E-books are for reading	Netflix is for watching	Blackboard is for studying
Second Law	Every Reader His/Her Book	Every listener his/her iTunes	Every artist his Photoshop	Every students his/her EasyBib
Third Law	Every Book its Reader	Every blog its reader	Every Google Map its Traveller	Every digital repository its researcher
Fourth Law	Save the Time of the Reader	Save the time of the listener	Save the time of the traveller	Save the time of the research
Fifth Law	Library is a growing Organism			

Table: 2 Modern version by Crawford & Gorman

Libraries serve humanity.
Respect all forms by which knowledge is communicated.
Use technology intelligently to enhance service.
Protect free access to knowledge.
Honor the past and create the future.

Table: 3 Web version by Alireza Nuruzi

Web resources are for use.
Every user his or her web resource.
Every web resource it user.
Save the time of the user.
The Web is a growing organism.

The Librarian

A librarian is the person who has been trained specially to work in a library. He creates interest amongst his readers by his refined methods. His success can be measured in these terms only. He will be able to put the resources of his library to better use only if he creates more and more readers who would use the library constantly. Reading of books will enlighten the readers who have to become the leaders of tomorrow. He can do so by identifying the needs of every reader and by providing him proper type of intellectual diet in the form of reading materials and services through the marketing of library resources.

Moreover, a librarian is bound to sustain this reading habit if tangible results are to be got. This can be done by constantly providing the best reading materials. Those librarians, who neglect their existing clients' needs, would prove very harmful to the profession and the society. So, it would be befitting to state that it is tolerable if few persons are converted into regular readers instead of creating new readers by the use of emotional appeals to their better sense and neglecting them altogether afterwards. The latter course will put the library into discredit.

The existence of a library needs a good administrator who undertake strategic management of information and resources. Select, classify and index library and information resources. Assist users to identify or interpret information. Coordinate and conduct training programs or promotional events to assist and engage library users. They are also responsible for the library statistics, which refers to a method of dealing with quantitative information involving collection, analysis, presentation and interpretation of data. Below is the characteristics of library information, Intermediate Outcomes and Benefits and End Benefits as presented by Research Libraries UK (RLUK) and the Research Information Network (RIN), which are adopted and presented in table:

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Library Characteristic	Intermediate Outcome and Benefits	End Benefits
Information and organizational skills	Good knowledge of external environment	Increased potential readership of research
Good subject expertise	Close relationships with researchers	Higher quality research
Strong service culture	Wider institutional role	More efficient research
Strong research materials	Improve research practices	More satisfied researchers
Publicly available catalogue of research materials	Better informed researchers	Greater research output
Flexible physical space	Opportunities for browsing	More motivated researchers
Managing institutional repository	Improved institutional understanding of assets	Requirement and retention of higher quality researchers

The philosophy of librarianship could be practical, theoretical, pervasive or evolutionary, which implies that the librarianship is a noble profession. It should impart knowledge to the ignorant and remove his darkness through enlightenment. Here, the researchers adopt the view of Umunna N.O. and Umunna N.O. as it aligned with library characteristics that,

"Education empowers citizens with the tools and resources to reduce inequalities of all types. No educational system can be considered adequate without an effective and efficient library and information services". 2017.

The above quote is also in line with what David Lankes earlier said about library reshaping the society, as it is believed that an improved community would definitely improve the situation of the librarian. "Libraries and librarians have a voice in the shaping of the vision for a better tomorrow and in how the library achieves that vision." David (2012). Dr. Ranganathan says. "It (Librarianship) is a noble profession. A librarian derives his joy by seeing the dawn of joy in the face of the readers helped by him to find the right book at the right time.

Duty of a Librarian vs Five Laws of Library Science

The core duty of a librarian is the collection and managing of books, magazines, newspapers, papers, electronic documents, journals etc. and making the information available to the end users

at the right time as captured by the five laws of library science by Ranganathan. They take up the responsibility to help students, staff and faculty in picking the right material for study and also recommending them other resources that may be useful. Also, they help in the teaching of perfect computer skills and usage of library.

Most important theme to remember in the five laws of library science is that librarians' service seeks to fulfill the greater mission and objective of the library by helping individual users and faculties. Despite the many transformations that have been wrought on librarianship by both developments of our information society and paradigm shifts in the self-understandings of the library, much has changed.

Libraries are facing the problem of underused information resources as well as the challenge of implementing Information Communication Technology (ICT) and these problems can also be solved by the philosophy of Dr. S.R Ranganathan. In 1931, Ranganathan's five laws of library science focused on bonding the users with their resources with the purpose to maximize the use and serving them to their utmost satisfaction. It is well understood that user satisfaction is the goal of all librarianship. The first three laws of Ranganathan focused on the relationship between a book and a reader. They are philosophical concerning the nature of people and the books. The fourth law is about the timeliness in information dissemination to the end users. While the fifth law addressed the organic nature of the library which takes care of innovation and subsequent change in library; nature of services, and new technology. Ranganathan recognized that library growth is like growth in nature which may be episodic or periodic. Which has to do with time and season as recorded in Ecclesiastics 3 verse 1, "To everything there is a season, and a time to every purpose under the heaven:" Hence, the growth of library must be flexible enough to accommodate and integrate new ITs in order to meet the dynamic needs of various users.

Analysis and the Relevance of Ranganathan's Five Laws of Library Science

The function of the library is to serve the users by supplying them energy for their academic journey and to build users on how to be skillful in the harvest of intellectual properties. Ranganathan's philosophy is a theory of attitude that acts as the guide for user behaviour. Ranganathan's philosophy is the study of the fundamental nature of knowledge, reality, and existence of libraries specially when considered user satisfaction. Today, we are living in an Information Communication Technology (ICT) driven society, and libraries are affected by the changes in the internal and external environment, their operation, organization, services and networks must be fine-tuned to meet the rising need of the users. For this, Ranganathan gave the five laws of library science as guiding principles for the entire development of the library and librarianship and to improve the quality of library services for the betterment of and satisfaction of the users of the library.

The libraries always have purpose, mission and objectives for their existence. For this, user's studies are conducted by institutions in order to achieve the mission to justify the existence of the library. Ranganathan's Laws may be treated as guiding principles to fulfill these objectives of the libraries.

First Law – "Books are for Use"

It is the responsibility of the library to build collections not for vanity but for constant use. It is commanding to ensure library users, make use of the materials. All efforts should be made to ensure that all the e-resources and physical books kept in the library are used because it is created for use. This places emphasis on the compulsory use of books rather than storage. Here, the library plays the role of change agent – the desire for academic and intellectual empowerment. Ranganathan's point is that libraries acquire materials and make them accessible so they can be used to answer queries. Libraries are not just about storing books; they are about people having free and quick access to books. For proper uses of information, they should be processed, proper

storage and dissemination of information. This law also serves as a guide to the Acquisition/Collection Development Unit that is responsible for acquiring, processing of books and also to the Circulation Unit responsible for giving out books either for loan of or to be used within.

Second Law – “Every reader his/her book”

It is the duty of the library to add useful items to the existing collection and make them accessible to all users. This is user-oriented law which implies that when a library user comes to a library or gains access to a library services, certain materials will satisfy the needs of the user. It is the responsibility of the librarian to link the library user and such material as speedy and practical as possible. That is why librarians select useful materials, create catalogues, provide helpful reference service, and do all the other behind the scene activities that add up to total library service. In a nutshell:

- i. A library should serve all users, no matter their age, race, religion, or economic status with useful items.
- ii. It is the right of every user to access the information (electronically or manually).
- iii. This law guides the library to take care of information users, so that they can access information without any hitch. Here, the librarian's duty is to assist users locate the information they require and ensure any obstacle in the way are not caused by librarians.
- iv. User Orientation may help in satisfying the need of the users.

Third Law – “Every book its Reader”

Here the librarian will serve as the connection between the users of the library and the materials they need. This is information oriented in the sense that it expresses modern reality better. This law teaches two lessons. The first is that libraries do not acquire materials in the abstract. Each acquisition is meant for a potential user, both general and specific collection decisions are dedicated by knowledge of the community the library serves. Decisions should be based on the present community and likely future changes in that community.

The second lesson is that even the most appropriate selection, choices can be vitiated if they are not backed up by an efficient and user-friendly bibliographic control system (Gorman, 1998).

- Reader development is part of the third law.
- Information professionals have to accept the information technology to organize and manage the information through automated system.
- Presently, e-books and e-journals have taken place into the libraries alongside with the print collections (hybrid system).

Forth Law – “Save the Time of the Reader”

The fourth laws deal with time management issue. Bearing in mind that the time of the readers is precious. In line this, three main types of library classification systems are used for making book finding easier for library users. For example, Dewey decimal classification, Library of Congress and Colon Classification. The fourth law has a strong connection with the fifth law as technology is involved when saving the time of a user. For instance:

- The concept of library without walls comes to the picture. Under this law, libraries must have the objectives of saving the time of the user. It heightened on how fast information can be delivered to its end user.
- ICT has helped user in getting their required information into their laptop, palmtop, kindle and desktops.
- Through telecommunication technologies, information professionals serve the information to its users within a fraction of seconds.
- Traditionally, all users should be able to easily locate the material they desire quickly and efficiently.

Fifth Law – “The Library is a Growing Organism”

It is important to put into consideration that libraries grow and develop and should be put into plan accordingly with time. The present-day libraries offer services through e-books and e-journal, social networking and other apps developed in line with the current technologies. That is why:

- i. All libraries are a social institution and it will keep growing like organism according to the fifth law. It will continue to grow in terms of documents, readers, staff, and technologies and should be able to adapt to changes and integrate of any new technology in the future.
- ii. Keeping in view the information available and growth in the area, it is hard for a single library to acquire all the information of a subject.
- iii. The fifth law's implication for latest technologies are adapting by the libraries to the future needs of user, including new services, mobilizing resources, new environment, dealing with uncertainty about future user needs, new customer groups, staff problem, space problem and most importantly the fund problem faced by every library etc.

The five laws of library science shortened the distance between author, librarian and reader while it gives a more direct involvement in the dissemination of information. Libraries provide access to an endless variety of information resources and opportunities for interactive communication. However, the fundamental mission and objective has remained, to facilitate and give access to information and knowledge, but the processes, tools, and techniques have undergone big development. These are a further development of digital libraries, which define personalized library services to Web users who expect customization and interactivity.

New drifts concerning personalization, self-service, and mobility have created a Web environment that is transforming how users are interacting with information. Especially with accessibility of virtual information. Students now-a-days prefer online information delivery; as integrated technology reduced circulation of traditional library materials. Librarians must continue to develop strategic plans in line with the fifth law for the future and endeavor to win or strengthen support for the library and its changing directions. For these tasks to be carried out professionally, we must understand how and why libraries and the use of library are changing the future of information gathering and dissemination with modern technology. The user becomes a partner and a contributor to the work of the library which means the understanding of users becomes even more important.

The Five Laws of Library Science and Community Service

Mittal (1973), described the motto of a librarian as, “Service Before Self”. Which means that librarian should sacrifice everything in order to serve and give maximum satisfaction to the library user. Librarian facilitates search as he carryout his primary service of arrangement of library resources well, for easy location, retrieval and use. In rendering these services, librarians are trained to remain calm, patient, friendly and should not feel angry even when a user does not know how to retrieve a given book of interest. Ranganathan's five laws of library science simplified the whole process of community service by librarian.

The existence of a librarian is also an essential part of the community he serves. His obligation to the community is 'service'. He cannot exist without the community he serves. So, it is the duty of the librarian to provide the right type of knowledge to the members of the community.

The five laws of library science mandates a librarian to afford the reader an access to the best thought of the world so that they may develop their personality by putting into practice the best ideas given by great scholars. The five laws of library science are channeled towards proper development of readers mind by making available best possible thought in an unadulterated form. It is the duty of a librarian to acquire and make available to the readers all the standard and classic works of well-known authors without bothering that they belong to one group or the other.

The researchers conclude that the library serves as an academic light which transforms ignorance to knowledge and knowledge to information.

Philosophy of Librarianship

Librarian's profession being multifocal should try to contain the basic ideas of all these five approaches, which ultimate goal is to simplify understanding of how to access resources and why libraries are changing technologically and better reposition the library to meet the requirements and expectations of university, polytechnic and college administrators and library users. The philosophy of librarianship is further analyzed to include the Five Laws of Library Science enunciated by Dr. S. R. Ranganathan as follow:

Creating Reading Habit

Research indicates that libraries are like bus stations, where explorers on a trip can stop over for a while for refreshment and also for fuel to enable them to get a little further along the road to their exploration endpoints. They supply energy to users for their academic journey and build its users on how to be skillful in harvesting intellectual properties of great scholars both dead and alive; especially now that the percentage of the use of electronic library resources have taken the learning and teaching space.

Self-education

A library's purpose should be to provide self-education instead of formal education which is the function of the schools, colleges, polytechnics and universities. Attaining knowledge is a life-long process and the library must prove a right type of disseminator for this purpose. Students now-a-days want 24-hour access to digital library collections and services in order to continue quest for knowledge outside the library. Fulfillment of this function of a library is very essential if the tempo of literacy achieved through formal education is to be maintained. Formal education is generally limited to specific time-frame of life whereas the process of self-education never ends and the libraries are the best medium for providing the right type of reading materials. Especially, with the integration of ICTs which is termed, technological growth according to the fifth law of library science.

Love of Books

A library consists of the trio *i.e.* Staff, Books and Readers. Their unity is most vital if the purpose of a library is to be satisfied. A librarian, who does not love books, cannot become a successful librarian just as a medical doctor who does not take care to learn the use of the apparatus of his trade. Love of books implies the *inquisitiveness* of the *librarian to know* the *books* thoroughly as *to* what *is* contained in them, to whom these are useful and what is their standard, so on. A person who is not well-read, and has no interest in research, cannot prove a good librarian. Love of books also implies that the librarian takes care of the books, though inanimate, sympathetically. In other words, he should take appropriate steps to protect the books from bookworms and other enemies of the books. Further, this love would be absolute if he strives hard to make the book available to the readers, so that every book finds its real lover.

Love of Humanity

Another main essential element of a library is love for its communities. The librarian must know his user thoroughly *i.e.* he must know their likes and dislikes at least in the literary fields so that he provides them with the exact type of information and materials. By 'love of humanity' is meant that the librarian truly gets pleasure in knowing the communities and satisfying their research needs. The librarian should try to understand the psychology of his communities in a sympathetic manner. He should also consider all the communities the same without any dissimilarity of tribe, caste, creed, sex or religion.

Love of Knowledge

Fifth element of a library is its staff. The librarian should himself be a learned person. He should value the view-points of the research scholars and the users. He should basically feel delight in attaining knowledge and should try to enhance the knowledge of his communities by giving right type of interpretations. He should respect those people who are knowledge-seekers.

Relevance of the Five Laws of Library Science to present day Libraries

Dr. S.R. Ranganathan's five laws are still relevant in today Digital Communication Technology and ICT enabled environment. These laws are very useful and helpful to librarians and the work done for the development of the libraries and welfare of the society.

Ranganathan expressed that a library is a collection of books which are professionally acquired, processed and kept for use. Here, it is clear that librarianship is the connection between a user and a book. Hence, the very life of a library in the personal service given to the users and the communities. (User satisfaction is an ultimate objective of whole librarianship). David (2012) defined communities as "groups of people that have come together around some common variable. That variable may be where they live, or the school they attend, or the institution they work for".

Today we are living in the era of technology where new gadgets and ICT products continue to be obsolete within a short time. Technology as application of knowledge is to make human life easy and comfortable. Knowledge in this context deals with scientific methods and how they are used in institutions, industries, organizations, processes and such other activities. African Drum, Radio, Telephony, Telegraphy, Printing and Photography, Television, Digitization etc. are some of the results of the technology that specially deals with production and transmission of information. Today, it is commonly called Information Technology (IT). It is the adoption of IT, which provides a nerve system to the global community on earth as the library aligns itself to the current drift of information dissemination.

The modern-day libraries are treated as gateway to the information, due to open information culture which shifted focus from traditional subject experts and limited modes, which suits the needs of the users. The library as social institution must serve its community. Pierce Butler commented in his book that, "Books are social mechanism for preserving the racial memory and the library one social apparatus for transferring this to the consciousness of living individuals."

Hence, there is need to provide users based or user centric service to the users to satisfy their requirements. This is due to a great change in information services coupled with the integration and application of the Information Technology in the library.

In this age, Ranganathan's philosophy is still relevant and accepted as a way to overcome the libraries users' related problems. His theories are based on scientific principles which can be concluded that his ideas are like a lighthouse for libraries and users. His ideas still fit our present world, even with the introduction of computers and other developments in the field of Telecommunication which changed the whole development of Library and Information Science.

Today, the five laws of library science still play vital role in user education based on Information Communication Technology scenario. The philosophy of librarianship provides an index to the ideals of the society, because it has been created for the society and by the society. This type of philosophy may be called 'Social Philosophy' or 'Reflective' according to R. Ramakrishna Rao who states that, "Libraries do not grow in vacuum, and they function in societies. So, their functions are determined by social forces."

In order word, these laws can create satisfaction among users and it provides principles of operating a library globally. The five laws are called the set of norms, percepts and guides good practice in librarianship. These basic principles when applied in practice indicate the best result in their adoption; hence, the library users are taught the use of library skills on how to exploit the resources and services to their maximum advantage. These laws are applicable in the areas of library science, library services, and library practice in the modern-day settings.

Ranganathan's original Five Laws of Library Science and other interpretations by numerous scholars' points out one central idea, which is to serve library user's information needs as the major theme. These laws gave a philosophical base by providing a scientific approach to Library and Information Science; ensuring a lasting future to the subject of library science; the profession of librarianship and the use of libraries. According to Ranganathan's five laws, Jim Thompson (1992) in disputing against a library services, revised Ranganathan's five laws to the following affirmations:

1. Books are for profit.
2. Every reader his bill.
3. Every copy its bill.
4. Take the cash of the reader.
5. The library is a groaning organism.

CONCLUSION

Most users today do not know much about the five laws of library science. These five laws concisely represent the ideal service and philosophy of library science. It is our hope that users gain knew insight from this article. First, to appreciate the great work of the father of librarianship, who simplified library activities for both users and library profession.

The five laws of library science are applicable to the current practices in librarianship as it integrates present day technologies for easy dissemination of information beyond the physical boundary of a conventional library. These laws describe the establishment, evaluation, and enhancement of library services through online dissemination of quality information and electronic library services as well.

The Five Laws of Library Science help to simplify library services. For instance, saving the user's time by providing quick and suitable access mechanisms is a principal concern of the library. This is because the books are for use, and can provide a dynamic source of information for all users. Hence, we can evaluate the library activities by applying the Five Laws of Library Science.

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