
Knowledge Building and Knowledge Management in Libraries: The Need and the Way

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Abstract

In the context of a library 'Resource' refers to information/knowledge. Knowledge as resource is the corner stone upon which any library is built. Present-day libraries are no exception, irrespective of whether they are academic, research, special or public libraries, for, today's society is an information society, and our economy is knowledge economy. "Knowledge economy is the use of knowledge to generate tangible and intangible values." (Wikipedia,2017). This paper is about knowledge building and knowledge management. The paper concludes with a short description of the resource development and resource management initiatives of St. Mary's College Library, Thrissur, Kerala.

Keywords: *knowledge Resources, Knowledge management.*

Introduction

Libraries and librarians are the dealers of the all-important information and knowledge resource. The history of the evolution of libraries tells us how written knowledge was collected, sorted and preserved in libraries. Libraries and librarians were developers of information collection. As it was in the past, so too today, librarians are the custodians of knowledge collection of immeasurable value. When the general public was allowed to have the access to such knowledge resource, librarians began to acquire the expertise not only to search, select, acquire, organize and preserve information, but also to repackage, disseminate and serve the public with the needed information. Today we are able to manage the process of collection through customization, using the blessings of ICT and making the collection of information more user-friendly.

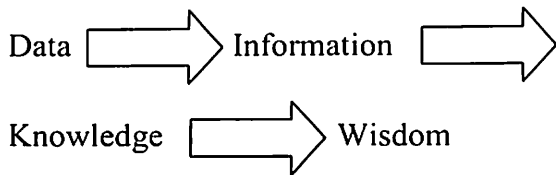
In his famous five laws of Library Science, Dr. S.R. Ranganathan, the father

of Indian Library Science, asserted that it is the duty of the librarian to give the right information to the right reader at the right time in the right personal way. In this statement we have the essence of knowledge management, although the term 'knowledge management' itself was coined long after Dr. S. R. Ranganathan. But in the 21st century when ICT is prominent, we are to approach the same concept with a different perspective. Today the librarian needs to be a tech-savvy person, who can enhance the intensity and effectiveness of collecting, organizing, preserving, retrieving and repackaging information to address the precise need of the information seeker.

Knowledge and Information

The words 'knowledge' and 'information' tend to be used interchangeably. It is, therefore, essential to differentiate between knowledge and information. There is an array of terms in the semantic field of knowledge and

information that appear to overlap in their sense, but that need to be differentiated for their specific content. The terms are:



This was first specified in detail by R. L. Ackoff in 1998.

Data: Data is primarily the collection of symbols, especially meaningful and language-aided combination of the letters of an alphabet and numbers.

Information: Data lends itself to interpretation, meaning-generation and logical deductions. Hence when a collection of symbols, letters of an alphabet and numbers is so arranged or processed to generate meaning that can give answers to such queries as ‘who?,’ ‘when?,’ ‘what?,’ ‘how much?,’ and similar enquires that can be imposed on the data, then that data gets transformed into information. It then becomes clear that it is an enquiring and analysing mind that puts the mantle of information on any particular data.

Knowledge: When a human mind or the user of the data is able to use information either for further creation of new knowledge or for more value-added activities like problem-solving, decision-making, money-generation, then information moves another rung up the ladder to become knowledge as far as that particular user is concerned. Hence knowledge is the property of the individual. In short, information is visible and tangible, where as knowledge is intangible; it not present in any particular format. It resides in the inner recesses of

somebody’s brain. Knowledge itself can be categorized into three types:

1. Explicit knowledge: Explicit knowledge is codified, and is sometimes referred to as “know-what” (Brown, 1998). It is therefore fairly easy to identify, store and retrieve explicit knowledge.

2. Implicit knowledge: Implicit knowledge is usually defined negatively as knowledge that is not explicit. However, like explicit knowledge, it can be codified.

3. Tacit knowledge: Tacit knowledge was defined by Polanyi in 1966. It is sometimes referred to as “know-how” (Brown, 1998), and refers to intuitive, hard-to-define knowledge that is largely experience-based. Because of the nature of tacit knowledge it is often context-dependent and personal in nature. It is hard to communicate, and is deeply rooted in action, commitment and involvement (Nonaka, 1994)

Wisdom: Wisdom deals with values. It involves the exercise of judgment. Russell Ack off explains that although we are able to develop computerized information and knowledge, and also develop understanding-generating systems, we will never be able to generate wisdom by such systems. It may well be that wisdom – which is essential for the pursuit of ideals, or valued and cherished ends of purposeful human living – is the characteristic that differentiates man from machines (Ackoff, 1989).

Definition of Knowledge Management

Dr David J. Skyrme, a strategic analyst and management consultant with

extensive knowledge and experience of information and knowledge management, defines knowledge management as “the explicit and systematic management of vital knowledge and its associated processes of creating, gathering, organizing, diffusion, use and exploitation. It requires turning personal knowledge into corporate knowledge that can be widely shared throughout an organization and be appropriately applied.” (Skyrme, 2017).

Knowledge management programmes typically have one or more of the following activities: (Skyrme, 2017)

- Appointment of a knowledge leader - to promote the agenda and develop a framework.
- Creation of knowledge teams - people from all disciplines to develop the methods and skills.
- Development of knowledge bases - best practices, expertise directories, market intelligence etc.
- Enterprise intranet portal - a 'one-stop-shop' that gives access to explicit knowledge as well as connections to experts.
- Knowledge centers - focal points for knowledge skills and facilitating knowledge flow.
- Knowledge sharing mechanisms - such as facilitated events that encourage greater sharing of knowledge than would normally take place.
- Intellectual asset management - methods to identify and account for intellectual capital.

Principles of Knowledge Management

Different people have uniquely approached the concept of knowledge management, and hence different sets of principles of knowledge management have been formulated. Among them the most popular knowledge management principles are the set of principles formulated by Thomas H Davenport (Some Principles of Knowledge Management (Davenport, 1996). According to Thomas H Davenport, there are ten principles of knowledge management. They are the following:

1. Knowledge management is expensive
2. Effective management of knowledge requires hybrid solutions involving both people and technology.
3. Knowledge management is highly political.
4. Knowledge management requires knowledge managers.
5. Knowledge management benefits more from maps than models, more from markets than hierarchies.
6. Sharing and using knowledge are often unnatural acts.
7. Knowledge management means improving knowledge work processes.
8. Access to knowledge is only the beginning.
9. Knowledge management never ends.
10. Knowledge management requires a knowledge contract.

Major Characteristics of Knowledge Management in Libraries

Tang Shanhong in his paper 'Knowledge management in libraries in the 21st century' presented in 66th IFLA Council and General Conference (Veer

Ramjeawon & Rowley, 2017) hosted in Jerusalem, Israel, has set forth a set of characteristics of knowledge management in libraries. He presents a new management-mode for libraries. He steps out of the conventional management-code and blazes a new trail. The modal propped by Shanhong has the following characteristics:

1. The first characteristic he has enumerated is that human resource management is the core of knowledge management in libraries.
2. The second characteristic of knowledge management in libraries is in expressed terms of its objectives. The objective of knowledge management in libraries is to promote knowledge innovation.
3. The third characteristic is associated with the application of ICT in libraries. Shanhong is of the opinion that Information Technology is a source as well as a tool for knowledge innovation. Hence it is a major tool for knowledge management in libraries.

Knowledge Management Initiatives

Prior to Peter Drucker, Machlup (Machlup, 1962) proposed an information theory. Though such farsighted and enlightened thoughts relating Knowledge Economy were already in circulation, the situation of Knowledge Economy was itself the child of market forces and the spread of massive education programmes in the world.

The transition to knowledge economy was driven by a growing recognition that long term economic growth, employment

and social welfare are increasingly dependent upon a nation's capacity to generate, appropriate and use new knowledge (Archibugi, 2005). Knowledge is the base of power. Indeed, knowledge is power. In this scenario knowledge management becomes crucial to attain power; it also drives development on all fronts of the human condition.

It is the proper and timely use of knowledge that brings development to an individual, to a social organization, to the State or Nation and to the whole world. The decisive role of knowledge in development can be illustrated by various threshold points. For example, it is generally estimated that sustainable economic takeoff cannot take place below a threshold literacy rate of 40 percent and a minimum telephone density of 30 percent (The World Bank, 2007). Yes, knowledge has always been an essential force of economic development: individual and societal development. If knowledge is so crucial for the well-being and overall development of human beings, the same needs to be managed well. The concept of knowledge management builds on the existing management practices, integrating them into a philosophy for improving performance.

Knowledge Management and Academic Libraries

The role of knowledge management in libraries becomes more and more relevant, important and necessary in a direction proportion to the development of knowledge economy. As knowledge- and learning-related organizations,

libraries, especially the academic libraries have the responsibility to provide a strong and path-breaking leadership in knowledge management.

The following are the reasons which compel the academic librarian to implement the knowledge management in libraries:

- The information explosion in multiple and varied formats.
- The Advent of ICT which brought a drastic change in means and methods of delivery of information.
- The change that has taken place in teaching-learning. The concept that teachers are facilitators of knowledge-acquisition, and that students acquire knowledge on their own by doing, experimenting, experiencing and personal involvement is one such area.
- Changes in organization structure.

Today people speak and experience 'Information overload' in the field of information generation. It is difficult for a user to search the entire corpus of literature available in a specific field or on a particular topic to garner the most meaningful, relevant, effective and up-to-date information. The enterprise of information-acquisition requires patience and genuine interest, not to speak of the need for plenty of time and considerable amount of finance. It is here that the importance of the practice of knowledge management in libraries becomes an asset and a necessity. A library needs to use new approaches to capture web information by cooperative efforts such as Dublin Core Metadata and the Cooperative Online Resource Catalogue. The very title of an article by Turvey and

Letarte (2002) gives us an impression that cataloguing is same as knowledge management. According to their view, "The library-world is characterized by fast-paced change, and perhaps no other area as much as field of cataloguing and they tied to define cataloguing as very important aspect of knowledge management in an increasingly digital world. Traditional cataloguing is inadequate to handle the apparently infinite amount of digital information that are available in very big electronic databases and on the internet. Using Dublin Core Metadata (DCMI), Open Archives Initiative (OAI) and the Cooperative Online Resource Catalogue (CORC) is a new approach to capture web information more meaningfully and precisely. (Turvey, 2002).

Technologies for realising Knowledge Management in Academic Libraries:

The survival of the library depends on its ability to provide the right information to the right reader at the right time. Knowledge Management is a life-saving remedy for libraries. Knowledge Management also organizes its allied activities like information accessioning, organizing, repackaging, retrieving and disseminating the same as value-added goods and services to the users in a smart way. Should libraries fail in this area, Smartphones, Google, Social Medias and other new gadgets and technologies are poised take away the existential reason for structural libraries.

The first step in knowledge management is accessioning of knowledge resources or otherwise collection development. As we are facing

information explosion, it is not practical for any library to acquire the whole of the information that is being created in the universe. The best solution is resource-sharing, for which one of the best Indian examples is N-LIST (e-journals and e-books) and e-sodhganga (reservoir of Indian theses), programmes by INFLIBNET, or e-shodhsindhu (e-resources) an initiative by MHRD, Government of India, where the member libraries are able to access the information either free or for a consolidated fee. Funding is a big barrier here, which is to be dealt with proper policies at the Government or management level. The same idea can be operationalised among local libraries to pave the way for mutual sharing and more economical and meaningful usage of the information.

To build up the resource-collection and to disseminate the resources to the end-user, the library must be equipped with latest information technology. The Librarian and the library staff need to be trained not only to use the technologies, but to teach the same to the users so that they themselves can manage their information search and information acquisition.

Knowledge Building and Knowledge Management in St. Mary's College Library, Thrissur

St. Mary's College, Thrissur, Kerala, situated in the heart of Thrissur, the cultural capital of Kerala, is a pioneer First Grade College for women in the District of Thrissur. The college is administered by the Nirmala Province of the CMC (Congregation of the Mother of

Carmel) sisters, CMC being an association of dedicated women in the Roman Catholic Church. When the college was established in 1946, it was affiliated to the Madras University; presently it is affiliated to the University of Calicut.

As time went by the college grew to be a full-fledged First Grade College. Today the college has 14 UG courses and 10 PG Courses, with more than 2000 students, 75 (Both Regular and Guest) Faculty members and 35 (Both regular and guest) Ministerial staff members. The college also runs a doctoral programme (Dept. of Mathematics). The National Assessment and Accreditation Council (NAAC), an autonomous body of the University Grants Commission (UGC), accredited the college at the B+ level in 2004 and re-accredited it with 'A' Grade in 2010 and 2015.

Faced with the exponential growth in the availability of information, the College Library it felt the need to build and manage the knowledge repository of the institution. The dream was to build an institutional repository cum Digital Library for the publication of faculty and student articles, and for the preservation and dissemination of valuable question papers that were not available any more, of other useful print materials such as newspaper cuttings about the College and its activities.

The College Management was not in a position to allocate huge amounts for the purpose, and so the College Library found a solution in DSpace, which is open source. For the infrastructural funding the College approached Honourable the Member of Parliament

Sri C. N. Jayadevan MP, who represents the Thrissur Constituency. Out of his genuine interest for education and development, he generously arranged for a sum amount of Rs. Five lakhs fifty Thousand.

DSpace Open Source Software

As it is claimed by the DSpace webpage, the open source software DSpace is a turnkey repository application used by more than 1000 organizations and institutions worldwide, to provide durable access to digital resources. DSpace is the software of choice for academic, non-profit, and commercial organizations that aims to building open digital repositories. It is free and easy to install "out of the box," and is completely customizable to suit the needs of any organization. DSpace preserves and enables easy and open access to all types of digital content, including text, images, moving images, mpegs and data sets.

Yes, DSpaceDirect is a good solution on several fronts. By making our archive accessible, we will boost archival access for researchers, on and off campus. Our records can be found on the Web with DSpace. Having the repository online so easily and quickly facilitated preservation and archiving discussions. Many valuable documents are fragile and getting digital facsimiles into the repository as digital back-ups is a significant advantage for St.Mary's College, Thrissur.

Future Plans

The St. Mary's College Library has started discussions about other uses for their new DSpace repository. Interactive learning opportunities such as using

examples of students work as illustrations on how to participate in collaborative education will embed the DSpace repository as a valuable teaching tool.

The Open Access deposit of scholarly works by faculty members gives them a chance to get cited by more number of people as the contents in Dspace is retrievable even by simple Google searches. It may be facilitated by soliciting selected faculty members to participate as exemplars.

Another project that is on the anvil is the preparation study materials by faculty members based on the syllabus and making it available through Dspace Digital Repository, so that students can have access to these notes easily even from their home. Students who are engaged in sports activities and who are compelled to miss classes will also find much help in this new system.

It was truly a turn-key installation experience and the training was top-notch. Customization questions are starting to pop-up. We are at a point where some additional customization and learning more about how to do those ourselves will be helpful. We are looking forward for a good training session elsewhere.

Conclusion

Economic environment and information environment are changing fast today. Knowledge Management has become a powerful tool for promoting innovation and realizing reengineering the various walks of life. It occupies very outstanding position in the creation of the knowledge innovation system of a country. But implementation of

Knowledge Management requires foresight and planning, and its success largely depends on the organizational culture. It is high time for librarians to reposition themselves central-stage, and to lead the way in the area of Knowledge Management.

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