

## Information and Knowledge Management in Libraries

Lokeshappa H\*, Sadhana P. Naik\*\*, Spoorthi T.R.\*\*\*

### Abstract

The paper describes that both knowledge and information have been essential ingredients to change our society for future vision and shows the different approaches of knowledge activities in the knowledge society. Both Information and Knowledge management (KM) in libraries should be focused on effective research and development of knowledge for academicians and researchers, creation of new information/knowledge bases, exchange and sharing of information/knowledge mentions the modules and processes of IM/KM and also discusses the IM/KM techniques in libraries.

**Keywords:** Date; Information; Knowledge; Knowledge management; libraries; information management.

### Introduction

Knowledge management has gained increasing attention since the mid 1990s. Knowledge management is essential to the success of the organization as it not only helps in discovering the resources, but the current scenario helps in evolving new business and service offers, rules and models. In the present age of information technology, both information and knowledge have become essential ingredients due to their multidimensional use and application in the society. These have also been playing an important role to change and improve the current society for future vision. Organizing information for its gainful use in social development interventions against the environment of information explosion all over the world has become a highly contentious issue that poses a great challenge for today's librarians and information professionals.

Nowadays, information and knowledge have become important productive factors for the modern economic, education and other system. The society will inevitably require in-depth management of information and knowledge. How to manage knowledge will become an important subject being faced by libraries in the near future.

The Information and Knowledge management in libraries should be focused on effective research and development of knowledge, creation of knowledge bases, exchange and sharing of knowledge between library staffs (including its users), training of library staff, speeding up explicit processing of the implicit knowledge and realizing, sharing and using these activities to promote learning and innovation. Information/Knowledge management is becoming important in libraries for many reasons. To provide valuable service to user, continual focus on the creation, updating application, sharing and communication of the knowledge to all these who require it.

**Author's Affiliation:** \*Librarian, Kodachadri Govt. First Grade College, Hosanagara Shivamoga, \*\*Student MLISc, \*\*\*Student MLISc, Dept. of LISc University of Mysore, Mysore, Karnataka, India.

**Reprint's Request:** Lokeshappa H, Librarian, Kodachadri Govt First Grade College, Hosanagara Shivamogga, Karnataka, India.

E-mail: lislokesh@gmail.com

### Definitions

There are many definitions of knowledge management. In general, it can be defined as the collection of processes of creation, dissemination, and utilisation of knowledge.

The knowledge management can be defined as:

Knowledge management is the process of capturing, distributing, and effectively using knowledge-as defined by Devenport (1994-95).

Knowledge management is a newly emerging, interdisciplinary business model dealing with all aspects of knowledge within the context of the firm, including knowledge creation, codification, sharing, learning and innovation, some aspects of this process are facilitated with information technologies, but Knowledge management is to a greater degree, about organizational culture and practices-as defined by Ruggles (1998-99).

### *What is Information and Knowledge*

*Introduction:* Before we understand the information and knowledge we must now the meaning the DATA also, when the analysis turns to knowledge workers and how knowledge developers capture and codify knowledge from human experts. Knowledgeable experts tend to be adept at explaining how they arrive at decisions or solutions because they have years of experience. They have become experts by adding and refining knowledge, not just by capturing and storing information. Likewise, knowledge developers, whose job is to acquire and represent experts' knowledge, need to understand the many ramifications of knowledge early in order to decide whether a particular expert has the requisite knowledge for building or updating a reliable knowledge base .

*Data:* The Data re unorganized and unprocessed facts. They are static; they just sit there. For example; John is six feet tall. This is data; it does not necessarily lead one anywhere However, the meaning one brings to the evaluation of this data could be important. Such an evaluation may indicate that John's height would make him an asset to the basketball team. This becomes information.

Data is a set of discrete facts about events, structured records of transactions. When a

user/customer goes to the store and buys merchandise, the number of socks and the price he or she paid are all data. The data tells nothing about the motivation behind the purchase, the quality of the socks, or the reputation of the store. Quantitatively, stores evaluate patterns of purchase, number of customers purchasing specific items, and other items those customers purchased. Evaluations such as these can be used to derive information about customer behavior, the price-sensitivity of certain merchandise and like. This means that data is a prerequisite of information. And the 'Data' means the information prepared for and used on a computer program. Data are collected from a study involving observations, experimentations or surveys. Such data are called 'raw data'. Raw data needs organizations and syntheses. The organized or synthesized data are called 'systematized data'. The organized data need to be stored and made accessible to the user who may be a scientist, a technologist, a planner. A business executive, an industrialist or even the common man. In the same way, economic data, business data, industrial data, manpower data socio-demographic data and the like.

*Information:* The word information is derived from the word inform, which means "to give shape to" information means shaping the data to arrive at a meaning in the eyes of the perceiver Information is an aggregation of data that makes decision making easier. It is also facts and figures based on reformatted or processed data. For example, a profit and loss statement provides information. It is an assembling of facts in a form that shows an organization's state of health over a specific time period.

Unlike data, information is understanding relations. It has meaning, purpose, and relevance. It has a shape, because it is organized for a purpose. The data may have been reorganized, statistically analyzed, or have had errors removed, all performed to add meaning to a message, a report, or a document. The medium is not the message, although it could affect the message, a report, or a document. An analogy: Having a

telephone does not ensure worthwhile conversation, although certain telephones make the message clear and more easily understood. Today, having more information technology is not a guarantee for improving the state of information. And the information is accessible to employees and managers through the company's local area networks, intranet, e-mail, Internet, satellite infrastructure, snail mail, or and delivery. Unlike data that emphasizes quantity and efficiency of processing, the focus of information is qualitative. The implications is that data becomes information when meaning or value is added to improve the quality of decision making.

*Knowledge:* Knowledge has always been an essential component of all human progress. Our ancestors must have employed an enormous amount of knowledge to form an axe-like object. Form know-how to use seeds for planting to the invention of machinery, to task, when it comes to basics, people use their intelligence and creativity to come up with the value-added products and services that take on the competition. Knowledge capital is essentially reflection of how well an organization leverages the knowledge of its workforce, the needs of its information resources on a regular basis.

Knowledge is the most cherished remedy for complexity and uncertainty; it is a higher level of abstraction that resides in people's minds. It is broader, richer, and much harder to capture than data or information. People seek knowledge, because it helps them succeed in their work. Tiwana views knowledge as actionable (relevant) information available in the right format, at that right time, and at the right place for decision making (Tiwana 2000). Knowledge is derived from information in the same way information is derived from data. It may be viewed as an understanding of information based on its perceived importance or relevance to a problem area. It can also be thought of as a person's range of information. Embracing a wider sphere than information, knowledge includes perception, skills, training, common sense, and experience. It is the sum

total of our perceptive processes that helps us to draw meaningful conclusions. For example, an invest or requires knowledge to evaluate two companies' profit and loss statements in order to determine which one is the healthier company.

#### *Information Management & Knowledge Management*

*Information Management:* Information management is concerned with the promotion of organizational effectiveness through the enhancement of the capabilities of the organization in coping with the demands of its internal and external environments in dynamic as well as stable conditions. Fairerwessels is more specific about the processes that this involves.

Information management is viewed as the planning, organizing, directing and controlling of the information within an open system. Information management is viewed as using technology and techniques effectively and efficiently to manage information resources and assets from internal and external sources for meaningful dialogue and understanding to enhance proactive decision-making and problem solving to achieve aims and objectives on a personal, operational, organizational and strategic level of the organization for competitive advantage and to improve the performance of the system and the raise the quality of life of the individual (by teaching him/her information skills, of which information management is one, to become a global citizen.)

*Knowledge Management:* Knowledge management is concerned with the exploitation and development of the knowledge assets of an organization with a view to furthering the organization's objectives. The knowledge to be managed includes both explicit, documentary knowledge and tacit or subjective knowledge, which resides in the minds of employees. Knowledge management embraces all of the processes associated with the identification, sharing and creation of information, successful

knowledge management requires systems for the management of knowledge repositories, and to cultivate and facilitate the sharing of knowledge and organizational learning. Knowledge management projects focus on one or more of the following four objectives:

- a. To create knowledge repositories, which store both knowledge and information, often in documentary form. A common feature is 'added value' through categorization and pruning.
- b. To improve knowledge access, or to provide access to knowledge or to facilitate its transfer among individuals; here the emphasis is on connectivity, access and transfer, and technologies such as videoconferencing systems, document scanning and sharing tools and telecommunications networks are central to this objective.
- c. To enhance the knowledge environment so that the environment is conducive to more effective knowledge creation, transfer and use. This involves tackling organizational norms and values as they relate to knowledge.
- d. To manage knowledge as an asset, and to recognize the value of knowledge to an organization. Assets, such as technologies that are sold under licence or have potential value, customer database and detailed parts catalogues are typical of companies' intangible assets to which value can be assigned.

### *Difference between Information Management and Knowledge Management*

Under the many banner of 'information management' and titles such as Chief Information officer (CIO), have for years been happily managing and exploiting record information (in books, reports and other documents), intellectual capital (information that people know) and the systems that support these activities, there are now moves to rename these roles. Thus staff titles that were once CIO are now Chief Knowledge Officer (CKO) to the extent that already in 1997 it was estimated that a third of US organizations had one.

Gartner notes that knowledge management enables individuals and collaborative groups to identify, capture and share information, while information management uses specialized IT staff to identify, capture and process information. Gartner proposes differences between two approaches.

This division seems to confuse rather than clarify. It tends to compartmentalize and further separate from one another computer professionals and users of information (knowledge workers), when there should be a coming together and cross-fertilisation. Also, defining a characteristic of information management as being dependent on well-defined enquires for retrieval' renders it more akin to (structured) data management. In fact, if one substituted 'information' for 'knowledge' in the left hand column, and 'data'

### **Gartner's views on Knowledge Management and Information Management**

<b>Knowledge Management</b>	<b>Information Management</b>
Captures existing knowledge	Centers on recording and processing information
Takes information from one source and promotes re-use in other situations	Takes information from multiple sources and organizes into database systems
Designed for distributed access, storage and control (empowers the end-user)	Emphasises enquires to highly structured repositories
Enables end-user defined information relationships and needs	Concerned with information collection, classification and distribution
Employs technologies for knowledge discovery	Dependent on well-defined enquiries for retrieval
Adds value for growth, innovation and leverage	Required to maintain mission-critical enterprise data
Increases productivity for innovation	Good productivity for efficiency

for 'information' in the other, the table entries still make sense, and would be recognizable to pre-knowledge management' information professionals.

What is important is that the management process must encompass both recorded information (which is independent of individuals). Elsewhere Gartner recognizes this by defining knowledge management (KM) as:

'A discipline that promotes an integrated approach to identifying, capturing, retrieving, sharing and evaluating an enterprise's information assets. These information assets may include databases, documents policies and procedures as well as the uncaptured, tacit expertise and experience resident in individual workers.

But 'knowledge is power', and in this uncertain organizational world employees will not willingly share knowledge as it may literally make them redundant. Hence, the greater emphasis being given to human resources management in companies. Although widely recognized as being over-hyped (and over here), knowledge management cannot be ignored. If we can clarify what our colleagues, suppliers or customers mean when they refer to KM and a common understanding is reached – all to the good.

The intention in this book is to be consistent by using the world knowledge to mean information that individuals know and hold in their brains, information to cover that which is available in recorded form independent of humans, and 'enterprise knowledge management' (EKM) to embrace both information and knowledge in the corporate context.

#### *Information Managers and Knowledge*

Information managers are professionals who act as agents on behalf of information processors to create and continuously improve systems, so that information processors are better able to meet their objectives. Information managers need to be able to understand and

interpret these objectives in the context of the resources available to them. The structuring of knowledge is a key role for information managers, and there will be a continuing need for professionals who can perform this structuring on behalf of others, either through systems and knowledge design, or through support to searchers.

#### *Objectives of Knowledge Management*

- (1) To promote knowledge innovation. Knowledge innovation is the core of the knowledge economy society. As bases for collection, processing, storage and distribution of knowledge and information, libraries represent an indispensable link in the scientific system chain, an important link in the knowledge innovation.
- (2) Libraries take part in scientific research process directly. The library work is a component of knowledge innovation.
- (3) Libraries must pay attention to diffusion and conversion of knowledge.
- (4) Libraries are to promote relationship between librarians, libraries and users, to strengthen knowledge internetworking and to speed up knowledge flow.
- (5) In the knowledge economy era, libraries will carry out researches on the development and application of information resources.
- (6) Construction of virtual libraries.
- (7) Protection of intellectual property rights in the electronic era.
- (8) To create knowledge repositories, which store both knowledge and information, often in documentary form.
- (9) To improve knowledge access, or to provide access to knowledge or to facilitate its transfer among individuals: here the emphasis is on connectivity, access, and transfer, and technologies such as video conferencing systems, document scanning and telecommunication networks are central to this objective.

- (10) To enhance the knowledge environment so that the environment is conducive to effective knowledge creation, transfer, and use. This involves talking about organizational norms and value as they relate to knowledge.
- (11) To manage knowledge as an asset, and to recognize the value of knowledge to an organization. Assets, such as technologies that are sold under license or have potential value, customer databases and detailed parts catalogues are typical of companies intangible assets to which a value can be assigned.

### *Knowledge Management in Libraries*

Information and knowledge management in libraries will become very essential along with the development of information and knowledge economy, because information and knowledge are renewable and reusable. It is a new management mode; it boasts the superiority and characteristics incomparable with the conventional management: here are the some features of information and knowledge management.

To create and enhance the decision power at a time or moment.

To circulate the communities in many ways.

More effective than charts and models.

To easy to use.

Timesaver.

These makes information retrieval easy.

And the most important resource in the information and knowledge economy system is the talents who grasp information & knowledge. The talent competition has become the focus of market competition in the information & knowledge economy era. The libraries will attach importance to vocational training and lifelong education of library staffs to raise their scientific knowledge level and ability of acquiring the information & knowledge. They also will and fully respect the human value, guide and bring into play wisdom potentialities of library staffs, take

developing knowledge resources in the brains of library staffs as an important way for rising, work efficiency. An all-round improvement of library staff's quality and positioning of the human value will become important objectives of the information and knowledge management in libraries.

Information technology is a tool for information & knowledge management in libraries because of IT tools, information & knowledge can be stored, organized, applied and exchanged with other fields and is easy to use. And the information and knowledge acquisition is the starting point of information & knowledge management in libraries. The application of information technologies enlarges the scope of information/knowledge acquisition. It is impossible to accomplish such important tasks using humans brains only in the modern society in which the information/ knowledge changes with each passing day. It will be possible to link closely information/knowledge sources and information/knowledge workers by computer networks, thus constructing information/knowledge networks in libraries based on realization of single-point information.

Information and Knowledge acquired must be accumulated and converged into information/knowledge warehouses of libraries. The priority of information technologies in the field of information/knowledge storage not only finds expression in quantity, but also in retrieval, sorting, and security of the information/knowledge. Information technology is also indispensable in the application and exchange of information/knowledge and in other fields. It functions as a source and tool for information/knowledge innovation

### **Conclusion**

Information manager are professionals who act as agents on behalf of information processors to create an continuously improve systems, so that information processors are better able to

meet their objectives. Information managers need to be able to understand and interpret these objective in the context of the resources available them. The structuring of knowledge is a key role for information managers, and there will be a continuing need for professionals who can perform this structuring on behalf of others, either through systems and knowledge design, or through support to searchers.

Information and Knowledge management has become a powerful tool for promoting innovation and realizing the various walks of life. The value of information and knowledge management relates directly to the effectiveness of an organization to deal with today's competitive situation and create their future. This process involves certain steps such as identifying, collecting, selecting, organizing, storing, sharing, applying and creating. Extraction of tacit information/knowledge is a challenging area of information and knowledge management.

#### References

1. Kumar PSG. A Student Manual of Library and Information Science (On the lines of the NET Syllabus of UGC). 2002: 497-503.
2. Blacker F. Knowledge, Knowledge Work and Organization: An Overview and Interpretation. *Organization Studies*. 1995; 16: 1021-46.
3. Ranganathan, SR. Prolegomena to library classification. Vol.1. Ed.3. Bangalore: Sarda Ranganathan Endowment for library Science; 1990, 81.
4. Skyrme, David J. Knowledge management: Oxymoron or dynamic duo. *Managing Information*. 1997; 4(7): 24-26.
5. Willard, Nick. Knowledge management: what does it imply for IRM. *Management Information*. 1997; 4(8): 31-32.
6. Dimattia, Susan and Oder, Norman. Knowledge management: Hope, hype or harbinger. *Library Journal*. 1997; 122(15): 33-35.
7. Wiig, Karl M. Integrating intellectual capital and knowledge management. *Long Range Planning*. 1997; 30: 399-405.
8. Sveiby, Karl-eric. What is knowledge management? [http://www.sveiby.com.au/knowledge management](http://www.sveiby.com.au/knowledge%20management). (Accessed on 28 August 2008).
1. Kumar PSG. A Student Manual of Library and Information Science (On the lines of the NET