KNOWLEDGE AND INFORMATION MANAGEMENT USING ICT: A REMEDY FOR TODAY'S LIBRARY

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ABSTRACT

Development of Information Technology (IT) and its applications in Library and Information Centers, the concept of document management has been changed to information management and again the entire scenario of information management has started its change to Knowledge Management (KM). This paper mainly focuses on the concept of Knowledge Management and the role of library and information professionals in managing the knowledge and information in the digital environment. It also highlights the importance of library and information professionals in the organizations such as knowledge creation, acquisition, preservation and sharing knowledge and information. This paper also describes the development and use of Information and Communication Technologies (ICT) in the library and information centers.

Keywords: Knowledge Management; ICT; Information Management; Digital Library; Library and Information professionals

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1. INTRODUCTION:

This is the era of knowledge and information explosion. The unprecedented growth of knowledge and information has impacted all organizations including the libraries. The conventional functions of libraries are collect, process, disseminate, store and retrieve information to provide better services to the end users. In the digital environment, the role of libraries is changing to provide the competitive advantage for its users. The success of library and information centre depends upon their ability to utilize information knowledge of its staff to serve the user community. The ICT has played a significant role in this dynamics which has not only made access across the globe easier, but has facilitated integration of thought processes, synergy in working methods and places, team learning and in enhancing organizational transparency. With the development of IT and its applications in libraries, the concept of document management has been changed to information management and again, the entire scenario of information management has started its change to knowledge management.

2. KNOWLEDGE

Knowledge is an intellectual capital when people out of creation, add value to information. It is generated.

Knowledge is classified and modified. It may be indexing. It is shared. Sharing of knowledge is a core element of knowledge management. IT has provided with number of possible solutions for sharing via e-mail, intranet etc.

Davanport (1998) defined knowledge as follows: Knowledge is fluid framed experiences, values, contextual information as expert insights that provides a framework for evaluation and incorporating new experiences of information.

Daniel Bell defines knowledge as a set of organized statements of facts or ideas, presenting a reasoned judgment or an experimental result, which is transmitted to others through some communication medium in some systematic form.

3. INFORMATION

Marc Porat states that "Information is data that has been organized and communicated".

Stehen Abram sees the process for knowledge creation and use as a continuum where data transforms into information, information transforms into knowledge and knowledge drives and undergoing behavior and decision making.

Information is visible, independent from action and decision, different in format after processing, physical product, independent from existing environment, easily transferable and duplicate.

Knowledge is invisible, closely related to action and decision, different in thought after processing, spiritual product, identified with existing environment, transferable through learning and not duplicate.

4. KNOWLEDGE MANAGEMENT

Knowledge management is generally understood to mean the sharing of knowledge inside or outside of an organization. Knowledge sharing has been greatly facilitated by modern computer based technology. There is no agreed definition of Knowledge Management, even among practitioners. The term is used loosely to refer to a broad collection of organizational practices and approaches related to generating, capturing, and disseminating know-how and other content relevant to the organization's business. Knowledge is no just an explicit tangible "thing", like information, but information combined with experience, context, interpretation and reflection. Knowledge involves the full person, integrating the elements of both thinking and feeling.

Knowledge management in library and information centers

Business world is changing in the new knowledge economy and in the digital age, libraries of all types are undergoing drastic changes also. The new role of libraries in the 21st century needs to be as a learning and knowledge center for their users. As a learning organization, libraries should provide a strong leadership in knowledge management. Unlike the business organization, the learning organization should sharing of knowledge with others outside. Libraries should improve their knowledge management in all of the key areas of library services. The exponential growth in

human knowledge in a variety of formats, libraries need to develop their resources, access and sharing strategies from printed to electronic and digital resources. Restricted by limited funding, technology, staff and space, libraries must carefully analyze the needs of their users and seek to develop cooperative acquisition plans to meet the needs of users. Libraries should be developed and maintained an integrated online public access catalogue (OPAC) with both internal and external resources as well as printed and other formats of knowledge. Useful websites and knowledge sources should be regularly searched and selected from the internet and included in OPACs. A system for the reviewing and updating of these resources should be performed. Going beyond explicit knowledge, libraries should also develop to capture all that tacit knowledge that is of importance to their users, their organizations, and to the internal operations of libraries. The website of each library should serve as a "portal" for all sources of relevant knowledge and information whether explicit or tacit, whether on site or remote and in all formats.

In the current digital and networked knowledge age, the size of information sources on the web is growing exponentially. No one really knows exactly how many web pages are on the internet, because new web pages are added every second.

Universities and research organizations are knowledge reservoirs. These highly valued intellectual assets, regardless of whether they are explicit or tacit, should be inventoried, archived, indexed, frequently updated and made accessible in digital form, Libraries should use the new approach to capture web information by cooperative efforts such as Dublin core metadata and the cooperative online resources catalogue (CORC).

Other new methods such as data mining, text mining, content management, search engines, spidering programs, natural language searching, linguistic analysis, semantic networks, knowledge extraction, concept of yellow pages, and such technologies in information visualization as two dimensional or three dimensional knowledge mapping etc., have been a part of recent developments in knowledge management systems.

5. RESOURCES SHARING AND NETWORKING

Traditionally, libraries have a long practice of resource sharing and networking. These have been greatly expanded by the rapid development of computer, telecommunication networking and

digital technologies. The sources of the cooperative work and resources sharing of OCLC (Online Computer Library Center) and Ohio LINK (Ohio Library and Information Network) in US, is the best examples in resource sharing and networking with the result of the full cooperation and participation of all member libraries without selfishness. Large and major libraries must take the lead in such an Endeavour.

6. CHARACTERISTICS OF KNOWLEDGE MANAGEMENT IN LIBRARIES

The role of KM in Libraries will become more and more important along with the development of knowledge economy. It is a new management mode. The following superiority and characteristics are incomparable with conventional management.

1. Information technology is a tool for KM
2. Human resource management in KM
3. User Services in KM

Information technology is a tool for KM

To facilitate the implementation of knowledge management, a well-defined and operational knowledge management system should be in place. Latest information technology should be used in the libraries. In this regard, the library director / librarian should consider himself as the chief knowledge officer of the entire organization and should work together with the chief information officer, heads of the planning department, the computer and information technology center, the human resource management department, the finance department etc., to design and develop such a system. Such knowledge management system should be built on the existing computer and information technology infrastructure including upgraded intranet, extranet, internet and available software programs to facilitate the capture, analysis, organization, storage and sharing of internal and external information resources for effective knowledge exchange among users, resource persons (faculty, researchers, subject experts etc.,), publishers, government agencies, business and industries and other organizations via multiple channels.

Human resource management in KM

The most important resource in the knowledge economy system is the talents who grasp knowledge. The talent competition has become the focus of market competition in the knowledge economy era. In the knowledge economy era, the libraries will attach importance to vocational training and lifelong education of library staff to raise their scientific knowledge level and ability of acquiring and innovative knowledge. They also will respect the human value, guide and bring into play wisdom potentialities of library staffs. It is an important way for raising work efficiency of library staff. An all round improvement of library staff's quality and positioning of the human value will become important objectives of knowledge management in Library and Information centers. The library staff members of Universities and research committees should be inventoried, indexed regularly and be made searchable and accessible through electronic databases created and maintained by libraries. The expertise should be appreciated with appropriate rewards and incentives. As a learning organization, libraries should allocate annual funding to provide continuing education and staff training to all staff members. Knowledge must be renewed and expanded to prevent it from becoming stagnant.

User services in KM

The utmost goal of knowledge management is to provide users with a variety of quality services in order to improve the communication, use and creation of knowledge. Information about each user can be obtained by analyzing the records of user registration, surveys, circulation and inter library loan, frequently asked reference questions and the use of e-journals and digital resources etc., User satisfaction and needs should be collected through periodical user's surveys. The findings should be used for the planning and redesign of the existing library services.

7. TECHNOLOGIES FOR KNOWLEDGE MANAGEMENT

Library and information centres should be developed / modified based on the perfect environment for new media applications. Due to impact of globalization, economic competition and revolution of ICT, the libraries are under going tremendous change its environment. ICT tools and

techniques, knowledge management systems, internet, web resources, digital libraries have made a significant change in the existing library systems and services. It is a major challenge for the library professionals. Knowledge acquisition is the starting point of knowledge management in Libraries. The application of IT, enlarges the scope of knowledge acquisition, rises knowledge acquition, speed and reduces knowledge acquisition cost. It is impossible to accomplish such important tasks by using man's brain only in the modern society in which the knowledge changes with each passing day. It will be possible to link closely knowledge sources and knowledge workers by computer networks, thus constructing knowledge networks in libraries based on realization of single point informationalization.

Data wise technologies developed the following list of technologies for the knowledge management.

• Intranet within an organization

• Document management systems

• Information retrieval systems

• Relational and object databases

• Electronic publishing

• Groupware and work flow systems

• Push technologies

• Help desk applications

• Brain storming applications

• Data warehousing and data mining

8. CONCLUSION

KM is an emerging field, much tooted or hyped since late 1990s. Due to the complicated nature of knowledge and its management, it is often difficult to estimate or demonstrate the value of the Knowledge Management. In the business world, knowledge management has been regarded as

strategically important for organizations to gain a competitive advantage over their competitions, to add value their products, to win greater satisfaction from their customers.

In the library world, there is a lesson to be learned from the business world. For any library to succeed in implementing knowledge management will require a strong leadership and vision from the top administration. Information Technology and systems can provide effective support in implementing knowledge management. Libraries should work together with Information Technology Professionals and others to develop the appropriate knowledge management systems. Libraries, with limited budget and human resources, should utilize the current management structure and technology to implement KM, either bottom-up or top-down. With an effort, KM will help to increase libraries operational efficiency and later to the ever increasing needs of our clientele.

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