

Digital Libraries and Knowledge Management: An overview

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Abstract

Digital libraries and knowledge management are Current topics in present information age. The paper focuses the main concepts and ideas of Digital Library and Knowledge Management, and how to realize such ideal environment for users to make the needed knowledge available. Many technologies and precautions are explained for a more effective promotion in the development of the DL. And also explained the Knowledge management and frameworks, Tools for KM in Libraries, Importance; Key aspects; Characteristics of knowledge management and KM in libraries and information centers in detail study

Keywords: Digital Library; Knowledge Management and Information Technology.

Introduction

The growth of digital libraries has lead to the creation of an abundance of available global resources and has lead to libraries without walls. Inevitably the growth of electronic content has changed library users' research attitudes and association with knowledge. On the other hand, librarians are seeking ways of integrating electronic and digital content with print content and thus offer a comprehensive knowledge source base for research, learning and instruction. Digital Libraries deal with the knowledge and the mission of the libraries is the knowledge management (Broadbent, 1998) [1]. What is apparent is that the objectives in knowledge management are somewhat distinct from the objectives in information management. Unfortunately, this distinction is not a simple one, especially since success in knowledge management depends on successful information management

in that the latter is an essential building block. One point of agreement appears to be that knowledge sources, where sources may be as narrowly or broadly defined as is useful, are to be organized to support the goals and aspirations of the organization. It is also apparent that technology is only one aspect of knowledge management solutions, which also involve critical components such as organizational structure, processes and the presence of a learning environment.

Concept and Definition of Digital library & Knowledge Management

The definitions of Digital library are given below-

1) *House Van*, defines, "Digital libraries include a wide range of working systems and research prototypes, collections of information and documents, and technologies"

2) *Digital Library Federation (DLF)* which states that "Digital Libraries are organizations that provide the resources, including the specialized staff, to select, structure, offer intellectual access to, interpret, distribute, preserve the integrity of, and ensure

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Received on 13 August 2018 | Accepted on 01 October 2018

the persistence over time of collections of digital works so that they are readily and economically available for use by a defined community or set of communities”

The definitions of Knowledge Management are given below:

1) According to Dillon, knowledge management “makes a consolidated understanding of the core concept difficult and that none of the definitions is fully satisfactory”

2) Shanhong defined that “Knowledge management will inject new blood into the library culture’ and she describes the ways libraries can integrate knowledge management and dissemination practices into their services” [6].

Knowledge Management and Frameworks

There are several definitions of knowledge management in the literature. Knowledge management is defined as the process of creating, capturing and using knowledge to enhance organizational performance. The e-knowledge centre (www.eknowledgecentre.com) depicts that knowledge management is a cross disciplinary practice which enables organizations to improve the way they create, adopt, validate, diffuse, store and use knowledge in order to attain their goals faster and more effectively.

Knowledge management in libraries generally consists of following functions: securing, storing, retrieving, and sharing knowledge. Summarizes all the activities that are mentioned in several theoretical frameworks

acquire;	identify;	distribute;	synthesize
codify;	verify;	evaluate;	evolve;
capture;	filter;	enable reuse;	apply;
store;	select;	find;	transfer;
create;	retain;	format;	use;
organize;	represent	communicate;	retrieve;
share;	transform;	distribute	integrate; and
secure;	adapt;	forward;	learn
collect;	combine;	link to people;	

Nine-step approach to KM:

1. Transform Information Knowledge
2. Identify and verify knowledge
3. Capture and secure knowledge
4. Organize Knowledge

5. Retrieve and apply Knowledge
6. Combine knowledge
7. Create knowledge
8. Learn knowledge
9. Distribute/Sell knowledge

Tools for KM in Libraries

The role Technology effects the knowledge management, although knowledge management is not about technology. Knowledge management tools are technologies, broadly defined, which enhance and enable knowledge generation, codification (know how) and transfer. The main roles of information technology in knowledge management are to accelerate the speed of knowledge transfer and creation. Knowledge management tools intend to help the processes of collecting and organizing the knowledge of groups of individuals in order to make this knowledge available in a shared base. Libraries use a combination of strategies and tools towards knowledge creation, knowledge adaptation, knowledge distribution and knowledge review. The working style of librarians has been replaced and enhanced by the advent of new information technologies, and the power of knowledge is now substantially recognized as an organization asset [2].

Digital Libraries	E-journals
Internet and Intranet	E-books
Library Consortia	E-mail
Expert Systems	Web site of Libraries
Online Catalogues	Local Databases
CD ROMs	Groupware

Importance of KM

- ❖ KM improves customer service and efficiency by streamlining response time.
- ❖ KM enhances employee retention rates by recognizing the value of employees’ Knowledge and rewarding them for it.
- ❖ KM streamlines operations and reduces costs by eliminating redundant or Unnecessary processes and promoting reuse.
- ❖ KM facilitates better, more informed decisions by reducing uncertainty.
- ❖ KM contributes to the intellectual capital of an organization.
- ❖ KM boosts revenues and enhances the

current value of existing products by getting products and services to market faster.

- ❖ KM leads to greater productivity by increasing speed of response.

Key aspects of KM

The Key aspects of KM are:

- a) Knowledge research and analysis
- b) Knowledge searching and linking
- c) Knowledge issuing and exchanging and
- d) Knowledge resource sharing [3]

Characteristics of Knowledge Management in Libraries

The characteristics of Knowledge management are:

Human Resource Management Is the Core of Knowledge Management in Libraries. 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 staffs to raise their scientific knowledge level and ability of acquiring and innovating 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 knowledge management in libraries.

The Objective of Knowledge Management in Libraries is 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. Secondly, libraries take part in scientific research process directly. The library work is a component of knowledge innovation. Thirdly, libraries must pay attention to diffusion and conversion of knowledge. They act as bridges for turning the results of knowledge innovation into realistic productive

forces. Knowledge management in libraries is to promote relationship in and between libraries, between library and user, to strengthen knowledge internetworking and to quicken knowledge flow. In the knowledge economy era, libraries will carry out researches on development and application of information resources, construction of virtual libraries, protection of intellectual property rights in the electronic era etc., thus founding the base for knowledge innovation.

Information Technology is a Tool for Knowledge Management in Libraries Knowledge acquisition is the starting point of knowledge management in libraries. The application of information technologies enlarges the scope of knowledge acquisition, raises knowledge acquisition speed and reduces knowledge acquisition cost. It is impossible to accomplish such important tasks by using man's brains 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 informatization.

The knowledge acquired must be accumulated and converged into knowledge warehouses of libraries. The priority of information technologies in the field of knowledge storage not only finds expression in quantity, but also in retrieval, sorting and security of the knowledge. Information technology is also indispensable in the application and exchange of knowledge and other fields. It functions as a source and tool for knowledge innovation [4].

KM in libraries and information centers

Today libraries are working in a knowledge based resource economy. Human resource management is one of the knowledge resource management in libraries. The objective of knowledge management is to promote knowledge innovation. It refers to the production, diffusion and transport knowledge as well as of the network systems constricted by related institutions and organization. The library and information centers should spearhead formulation of new policies, strategies and implementation of new knowledge management for rendering qualitative services to its customers for increasing user's faith in organization.

- ❖ Establish an adaptive system (i.e. public,

academic and special library system).

- ❖ Create a network among LICs within on individual library systems and linking them with each other
- ❖ Put in a place coordinating national boarding strategy.
- ❖ Offers quality services as per user's demands
- ❖ Make LIC a global knowledge hub for offering information.
- ❖ Make use information Technology for knowledge management.

Use of information technology enhance acquisition speed and reduces the cost. It also enables interlinking of knowledge sources, network and computer networks. Main information technologies relevant to knowledge management in libraries include Internet and Extranets, storage architecture, DBMS, Metadata, data acquisition and gathering, dissemination, messaging, information retrieval, information resources sharing, groupware, middleware, online analytical processing multidimensional analysis and data mining [5].

Conclusion

Knowledge management is very important to an organization. Mission, conception, change and performances are four dimensions of knowledge management, which define the value of an organization. The most important area of knowledge

management is the concept of tacit knowledge. Unlike most other management tools, knowledge management encloses every individual in the organization-cutting across departments, functions and business unites. The wide applications in the field of knowledge management are the expert, knowledge expression, and machine learning.

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