Challenges of Library and Information Science in Digital Era

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Introduction

It is comparatively easy to access information once it is documented but difficult to document if it is hidden in the human mind. Managing knowledge is becoming one of the pivotal roles to be played by the library professionals. Advancement in the information and communication technologies invited new opportunities and challenges to the library professionals. Introduction of collaborative and conversational technologies, various networking tools and its applications in libraries made the knowledge management effectively and efficiently library professionals can make effective use of collaborative tools and can benefit as much from it rather than the traditional technologies. There is considerable innovation going on to develop more and more collaborative tools and its efficiency to provide more flexible and participatory approaches to the exploitation of knowledge.

Concept of Knowledge

Knowledge is the sum total of known and unknown entities and is the result of human endeavors and past experiences accumulated through generations. Knowledge is dynamic, multidimensional in size, ever growing in its range and scope and divergent in nature. According to the Father of Library Science knowledge is a sum total of information conserved by civilization. Knowledge is developed through experience over time and can help people deal with complex issues and judge new situations.
Dimensions of Knowledge

Basically, knowledge can be categorized as explicit and Tacit (Implicit/Experimental) knowledge. The distinction between tacit and explicit knowledge is another important concept in knowledge management. Explicit knowledge is documented, articulated into formal language, formally expressible, easily communicable, and shareable. whereas, Tacit knowledge is subjective and hard to put into words. It is uncodified, expressed through action used by employees to perform their work and achieved during socialization, face-to-face meetings, teleconferencing and electronic discussions forms. Explicit knowledge is static in nature whereas, Tacit knowledge is dynamic in nature and is difficult to share. Capturing tacit knowledge remains a major challenge to the library professionals for the reason that no technology or database can capture all knowledge. Tacit knowledge represents the attempts of the organizations to maximize the capabilities of their people by capturing their expertise and turning it into a corporate asset.

Knowledge Management (KM)

The popularity of Knowledge Management (KM) concept was originated first in the industrial sector before spreading to the higher education section and now it is a new paradigm in library management. Knowledge management, as its name depicts has two components, knowledge and management. KM, then, is the systematic process of managing knowledge assets, processes, and the organizational environment to facilitate the creation, organization, sharing, and utilization of organizational knowledge to achieve the strategic aims of an organization. “Knowledge Management is not so much the management of tangible assets such as data or information, but the active management and support of expertise.
According to the Gartner Group (1998) KM is ‘a discipline that promotes an integrated and collaborative approach to the process of information asset creation, capture, organization, access, and use. Information assets include databases, documents, and, most importantly, the uncaptured expertise and experience resident in individual workers. Within the context of national Federation of Library Associations and Institutions (IFLA-2012), KM is defined as ‘a process of creating (generating, capturing), storing (preserving, organizing, integrating), sharing (communicating), applying (implementing), and re-using (transforming) organizational knowledge to enable an organization to achieve its goals and objectives. (Nazim & Mukherjee 2011) explains the Library Professionals’ Views On KM ‘as accessing information, sharing it, on a need to know basis, to either increase the professionalism or the value of the individual employee, which then increases the performance of the library’. Knowledge management is meaningful only when, necessary and up-to-date information is available to the right people at the right time and in the right format in a cost effective way.

WIKIS

Wikis (‘quick’ in Hawaiian) is a virtual platform contains collections of interlinked documents and files where the users can share their experiences, expertise and views. It is a content management system which allows people to collaboratively develop a Web site without any tech-savvy. Wikis technology provides an area for effortless collaboration and knowledge sharing among a community of users without even having programming knowledge or web design skills. Users can also edit the organization of the wiki, in addition to the content, and need not know HTML or have Web design skills since Web-based forms provide the simple editing interface. Wikis can be used to capture experienced person’s knowledge and making it accessible to others.
Wikis in general has been described as an important knowledge management tool because of its ability to offer geographically dispersed group members a centralized, web based knowledge repository for storing shared and created knowledge. Literature also indicates that wiki users believe that storing content in a wiki knowledge repository keeps documents ‘live’ and prevents content from being outdated and unused.

A wiki can be used in multiple ways as a conversational knowledge management system to support the goals of many organizations, including libraries. The most well known example of a successful wiki is Wikipedia.org, a free online encyclopedia composed of articles written by the general public.

Wikis for Library professionals

Wikis makes formal knowledge more visible and usable and informal more public and useful.

Most of the library professionals would be running behind to get some information about their routine works related classification, cataloguing, purchase of books journals online access to e-books and e-journals etc. Personally many times it is felt that we should have a common platform to get quick and authentic access to information which affords a quick solution. Wikis can be designed to help library professionals to learn from one another about the library services, instructions, tools and technologies etc. Wiki can be used as a means for community building, subject guide, website, courseware or a knowledge management tool in libraries. It can be also be used as staff intranet, collaborative document editing, collaboratively-developed manual, conference wikis, and knowledgebase and even for planning space for conferences in libraries. Following are few possible implementations of wikis in libraries:

- Helps to facilitate social interaction and discussions among library professionals and users.
• Provides a place where the entire library personnel can stay informed of what is happening, or to update manuals and documents for library use.
• Act as a reference resource and can be used to share information among the library professionals and users.
• Creation of subject guides, keywords, subject gateways is possible using Wikis.
• Supports participatory librarianship as it enables users to make original and genuine contributions to subject contents as both the libraries aiming to cover it in near future
• Being a knowledge management tool Wikis can be used to enhance the content, keep the contents in an organized and manner
• Facilitates the library professionals to have a common platform discuss what type of services to offer to their patrons, tools and techniques can be used etc

**Wikis-From Tacit to Explicit**

Wikis act as a platform for exploring the tacit knowledge explicit to the public. Being a knowledge management tool of collaborative effort, knowledge which is being hidden in the minds of people sees the light once they get a platform to share it with. Within a library among the professionals, experiences can be shared and also it can be opened to the public as well since wiki facilitates a quick way to publish information collaboratively on the Web. Knowledge accumulated in the minds people through their vast experiences and expertise may not be documented and the coming generation would be missing the valuable information. Wikis facilitates to make their experiences and expertise opens and invites the suggestions, comments and views of the public to make their knowledge viable. Once they share their views, suggestions and techniques they have learned from their experience can be documented to make the knowledge explicit to the public and it is clear that
the collaborative work would have authenticity. Print
documents are really hard to update however wikis helps to
bring up to date information moreover foster the cooperation
among the group.

Advantages of Wikis in Libraries

- Simple, easy to use, open to all web based tool
- Facilitate sharing and transfer of explicit knowledge among
  the professionals
- No registration is required for the content modification
- No sound experience in programming languages or
  technical expertise is required
- Allows others to easily add a new page, edit page, search,
  comments, remove, files and attachments, etc
- Facilitator to share the knowledge from expert to the general
  public
- Contents can be edited collectively and collaboratively,
  deleted, modified etc
- Collaborative works helps to improve the quality of the
  content and enhance collaboration skills
- Encourages others to participate, contribute or share their
  knowledge and expertise
- Performing as both content management system and a
  collaboration system
- Enhances communication and collaboration among the
  library professionals
- Giving users as much power as possible to change the
  content there by foster the exchange of ideas and
  connections.
- Enhances the credibility and value of the profession and
  professionals
- Different people can be responsible for different content
  areas
Weakness of Wikis

- Reliability, accuracy and relevancy of the contents are matter of concerns
- Unavailability of up-to-date information
- Open-editing capability and low security set up raises concerns
- Encroachment of frivolous contributors
- Potential inequitable work distribution by contributors
- Person with indistinct idea can mislead the readers
- Concerns about ownership of content
- Highly collaborative and demand community of users to function
- Worthless contribution and disorganized contents lead to lack of usability
- Formatting rules vary based on the type of wiki software and options turned on by the administrator
- Confidential or financial information cannot be displayed

Conclusion

Library professionals realized the importance of using advanced technologies and tools to store and retrieve knowledge to cope with the dynamically changing environment in the digital age and cater to the ever-increasing needs of knowledge seekers. Individuals do not make enough effort to share their knowledge, which resides in their mind unless they get a suitable platform. Undoubtedly, the information technologies and web 2.0 tools can provide effective support in implementing knowledge management among the library professionals and the professional competency needs to be developed among them. There are many web 2.0 applications that can be effectively and efficiently implemented in libraries to make their tacit knowledge explicit. Wikis, being a web 2.0 tool support knowledge management in libraries and good for collaboration.
and sharing contents also. Implementation of Wikis in to knowledge management increases productivity and efficiency. Individual user can contribute what they know and can be revised later to make the content precise. As a conversational technology, wikis encourage incremental knowledge creation and knowledge sharing, in addition to supporting a decentralized group of users.

References

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