

Knowledge Sharing through Technology Infrastructure of Knowledge Management

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Abstract

Technology has been defined as “systematic Knowledge and action, usually of industrial process but applicable to any recurrent activity”. The enablers for knowledge management are strategy, leadership, culture, measurement and technology. The KM process requires technology to support the capture and sharing of people’s knowledge, promote collaboration, and provide unhindered access to an extensive range of information technology. It must support all activities involved in the knowledge life cycle such as capture, organization, retrieval, distribution and maintenance. The information in the Meta model provides the knowledge objects context and much of the knowledge content’s value.

INTRODUCTION

Technology forms one of the key enablers for the implementation of KM services and applications. Many of the commonly available approaches to KM would be rendered ineffective in the absence of technology. The innovation and knowledge creation emphasizes the creation of new knowledge through basic and applied research development. (Knowledge Management (KM) is a conscious strategy of getting the right knowledge, to the right people, at the right time, and helping people share and put information into action in ways that will improve organizational performance.) This paper aims to provide opportunities to meet the basic learning needs of information professionals for an emerging global society.

INFORMATION MANAGEMENT

The KM technology environment must provide certain basic functions. The level of sophistication needed will depend on KM objectives, and existing technology will provide some desired functions. Technologies that have already proven their value to KM include intranets, groupware, document management, data warehousing, artificial intelligence and intelligent agents.

Technology should support the collaborative process and therefore new knowledge generation. Traditional tools for capturing knowledge include word processing, spreadsheets, e-mail and presentation software, etc. The newer technologies such as voice recognition, shared workspace, video conferencing, etc are used to support the knowledge – capture process. Organizing process such as indexing, abstracting, and integrating are



best applied during the capture process. The ability to capture and manage human-added value makes information technologies particularly suited to dealing with knowledge.

INFORMATION LITERACY

Information Literacy is now an indispensable aspect of course program in many institutions. Educational institutions must have access to networked resources such as e-journal and databases. New methods of assessment like Wire-less Fidelity (Wi-Fi) and Radio frequency Identification (RFID) are being introduced. Online tests are gradually becoming widespread and provide more information than traditional multiple choice tests. The emergence of a knowledge based society is changing the global economy and the status of education. These possibilities exist largely as a result of two converging forces. First, the quantity of information, much of it relevant to survival and basic well-being, is exponentially greater than that available only a few years ago and second, the rate of its growth is accelerating.

The information society demands a work force that can use technology as a tool to increase productivity and creativity. This involves identifying reliable sources of information, effectively accessing these sources of information, synthesizing and communicating that information to colleagues and associates.

KNOWLEDGE – BASED PROCESS

It includes knowledge acquisition, knowledge – incubation, knowledge – amplification and knowledge – dissemination. It is self-evident that information is a key resource for teaching, learning, research and publishing. The internet offers promise for improving education worldwide. Internet will have a positive effect on improving education and in providing students with greater access to

libraries, information and teachers around the world. 'Knowledge is the most powerful device to solve problems.'

e-space IN EDUCATION

The spaces of learning have constraints in terms of infrastructure availability and limitations in the number of users who could utilize them in one block. With the advent of technology, the education space is increasingly becoming virtualized, thus transforming 'formal space of education' into 'informal space of education'. According to Malcolm Brown 'learning spaces encompass the full range of places in which learning occurs, from real to virtual, from class room to chat room'. In the virtualized education space, the methods include teleconferencing, video conferencing, Online courses, e-meetings, etc.

With the increasing tendency to shift towards virtualization, 'space for teaching' are seen as sites of learning rather than locations for delivering information effectively. As the learning space becomes more virtualized a software system known as virtual learning environment is deployed that facilitates administering of course content. The virtual e-learning environment is also known 'managed learning environment.'

The virtual classroom of the future will comprise multi-location students taught through 'tele-teaching' by a team of faculty, who are geographically distributed. The instructor must retrieve the knowledge from multiple sources, such as the internet, digital library, and generated creative – content and expert lectures in this field.

e-SPACE For LEARNING

- a) **Online learning (e-learning)** A web-based learning mechanism could be used within the institution or outside it. It needs to consider aspects such as flexibility, modularization, assistance

from experts, interactivity, instantaneous access to course and reference materials.

- b) **Mobile learning (m-learning)** It is concerned with the imparting of training using mobile devices like cell phones, personal digital assistants, voice recorders, digital cameras, portable scanners, etc.

The educational information space could be virtualized and made available in various modes, such as e-library, web-conferencing, Webinars, Web casting, Pod casting and Learn casting, Weblogs (Blogs), e-Forums, etc.

KNOWLEDGE MANAGEMENT SYSTEM ARCHITECTURE

According to Garner Group, there are five layers of System Architecture model.

- User Interface
- Knowledge meta model
- Knowledge repository
- Knowledge Access Tools
- Knowledge Management enablers

The user interface protects the user from technology complexities. The Knowledge meta model and the knowledge map are the heart of the knowledge management system. They are closely linked with the knowledge repository but because of their importance, they are defined separately in the context of the knowledge system architecture. The Meta model contains Meta knowledge, which is simply 'Knowledge about the knowledge'.

KNOWLEDGE MAP

K-map is the navigational system that enables users to find the answers they seek. It is the primary means of representing the entire collection of knowledge objects, regardless of category or location and helps to identify the links between existing islands of

information. K-map must provide an easy-to-use method for users to browse internal and external knowledge holdings.

Knowledge repositories can be file servers, database servers, groupware servers, document management systems or web sites. Each repository's structure will depend on the content or knowledge it stores and manages.

KNOWLEDGE ACCESS TOOLS

The components needed to manage knowledge base access are a complex combination of system administration tools and knowledge management enablers. The specific tools needed differ, depending on the environment.

CONCLUSION

Social and economic progress is achieved by many countries principally through the advancement and application of knowledge. In educational institutions, knowledge is present in individual faculty, researchers, administrators and decision-makers and other published sources such as books, journals, course materials, curriculum and research reports, etc. KM with the help of information and communication tools improves the organizational efficiency and offers opportunities to share existing knowledge.

Now –a-days most of the knowledge enterprises are paying more attention to capture the tacit knowledge and insights which comes to light through communication, interaction, collaboration, and applications. These are new tools which enhance the communication and knowledge-sharing capabilities for intellectual works. Other collaboration tools such as e-mail, web conferencing, discussion groups, alerts, workflow and document sharing are essential components of knowledge management.



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