



E-learning and Knowledge Management in the Quality of era

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Abstract

In general knowledge management is regarded as a series of interrelated activities, such as knowledge identification, acquisition, storage, distribution, reuse, maintenance and development that help society in taking right decisions in an appropriate way. As a powerful source, KM and e-learning work together in letting users obtain their requirements in the form of correct and complete information. In an organizational content, the concept of KM could be defined as actions taken to create, save, and reuse the organizational KM. In order to share the information through people and organizations, e-learning plays a vital role which involves teaching and learning process and also content management. It views KM as a structural resource which can be represented with relative form. Just as with any other document and resource management, KM aims to provide proper KM at the right form, and to the right KM worker. Therefore, to address issues like how to capture, represent, manipulate, utilize, and share KM for effective KM, e-learning is an important method which can facilitate the capture, storage, sharing, dissemination, and creation of knowledge about teaching and learning.

Key Word: E-learning, Knowledge Management, Quality

Introduction

The essence of knowledge management is to mobilize knowledge for all practical objects, after vaporizing the hype, the intention of knowledge management is to have people share their learning with the rest of the group, in the capacity of either a peer or as an expert. Today, the sharing is taking place through the internet due to its collaborative power and tremendous reach. However, looking at the way telecommunications is growing, we wonder if tomorrow's world will have anything such as knowledge management.

The arrival of e-learning sustained by the technology fillip is all set to chance the future of knowledge workers. The challenge in the knowledge era is not to wait for organizations to demand learning after the alternation in technology and Business has already taken place .E-learning with the help of knowledge management and the learning organization has the capability to answer the needs of the future knowledge worker in more ways than one .E- learning systems will become more prudent and will help organizations figure out their learning requirements emerging out of the learning gaps.

E –learning and related key terms

E-learning is also called web based learning, online learning, distributed learning, computer-assisted instructions, or internet-based learning. Historically, there have been two common e-learning modes: distance learning uses information technologies to deliver instruction to learners who are at remote locations from a central site. Computer-assisted instruction (also called computer-based learning and computer based training) uses computers to aid in the delivery of stand –alone multimedia packages for learning and teaching. These two modes are subsumed under e-learning as the internet becomes the integrating technology.

A concept closely related to e-learning preceding the birth of the internet is multimedia learning. Multimedia uses two or more media, such as text, graphics, animation audio, or video, to produce engaging content that learners access via computer. Blended learning, a fairly new term in education but a concept familiar to most educators, is an approach that combines e-learning technology with traditional instructor-

led training, where for example, a lecture or demonstration is supplemented by an online tutorial.

Elliot mobile, one of the renowned experts in e-learning, suggests that e-learning is the use of network technology to design, deliver, select, administer, and extent learning.

In a more elaborate standpoint, Cisco chairman, john chambers opines that e-learning is an internet-enabled learning process whose formats, management of the learning experience, and a community of net worked learners, content developers and experts.

Components of e-learning

Creating e-learning material involves several components. They are content development, management of content delivery of content and standarization of the content. content delivery may be either synchronous or asychnronous synchronous delivery refers to real-time, instructor-led e –learning, where all learners receive information simultaneously and communicate directly with other learners. Examples include teleconferencing (audio video, or both), internet chat forums, and instant messaging with asynchronous delivery, the transmission and receipt of information do not occur simultaneously. The learners are responsible for pacing their own self-instruction and learning .The instructor and learners communicate using e-mail or feedback technologies but not in real time. A variety of methods can be used for dsynchronous delivery, including e-mail, online bulletin boards, newsgroups, and weblogs. content management includes all the administrative functions needed to make e-learning content available to learners. It is clear that standards are needed for the creation of new e-learning material. such standards promote compatibility and usability of products across many computer systems, facilitating the widespread use of e-learning materials-several organizations. The most well-known set of standards in the advanced distributed learning: sharable content object reference model(SCORM).SCORM is a group of specifications developed through a collaborative effort of e-learning organizations funded by the united states department of defence. SCORM specifications prescribe the manner in which a learning-management system handles e-learning products.

The evidence for effective and efficiency e-learning

Faculty ,administrators, and learners find that multi media e-learning enhances both teaching and learning .The effectiveness of e-learning has been demonstrated primarily by studies of higher education, government ,corporate ,and military environments AAMC,2005; Candler et al.,2003. E-learning provides interactive learning which shifts the focus from a passive, teacher-centred model to one that is active and learner-centred, offering a stronger learning stimulus .Interactivity helps to maintain the learner's interest and provides a mean for individual practice and reinforcement .Evidence suggests that e-learning is more efficiency because learners gain knowledge, skills, and attitudes faster than through traditional instructor-led methods .This efficiency is likely to translate into improved motivation and performance .e-learners have demonstrated increased retention rates and better utilization of content, resulting in better achievement of knowledge ,skills and attitudes .Multimedia e-learning affers learners that flexibility to select from a large menu of media options to accommodate their diverse learning styles.

There aspects of e-learning have been consistency explored They are product utility, cost- effectiveness, and learner satisfaction .Moreover, learners using computer-based instruction learned more affectivity and demonstrated better retention .Recent reviews of the e-learning literature in diverse education contents reveal similar findings.

What is knowledge management?

Gatner Group (1998) defined knowledge management as.” Knowledge promotes in integrated approach to identifying, capturing, retrieving, sharing and evaluating an enterprise's information assests. These information assests may include databases, documents, policies, procedures, as well as the uncaptured tacit expertise and experience stored in individual heads.”

KM and e-learning are two sides of the same coin

Knowledge management practices are key enablers and essentials tools for a learning organization .They provide the needed infrastructure in the form of information, systems and processes that facilitate the management of knowledge and flow of the information within the organization. The concepts of the learning

organization and knowledge management can be considered as two sides of the same coin.

Knowledge management involves e-learning that can be used to deal with time management problems. E-learning combined with some face to face interaction from time to time can be a very effective way of learning. Practices in knowledge management are now shifting from strategies that focus on dissemination to those that Promote education and innovation (McElroy, 1999). Knowledge is not only focused on capturing explicit factual information, but is also focused on the experts' experiences and learning of individual employees.

Content design

This includes the following steps :

* Establishing the assessment criteria and methods by which students will demonstrate skills, attributes. online offers many more options than a lot of people think. Time spent exploring options here can open up many more ideas for presenting content, and is more likely to produce meaningful and integrated assessment, embedded within learning activities.

- Mapping and then sequencing the key elements of the content.
- Applying instructional design effective for online
- Technical or multimedia decisions
- Deciding what should be presented on the screen and what should be downloadable /printable.

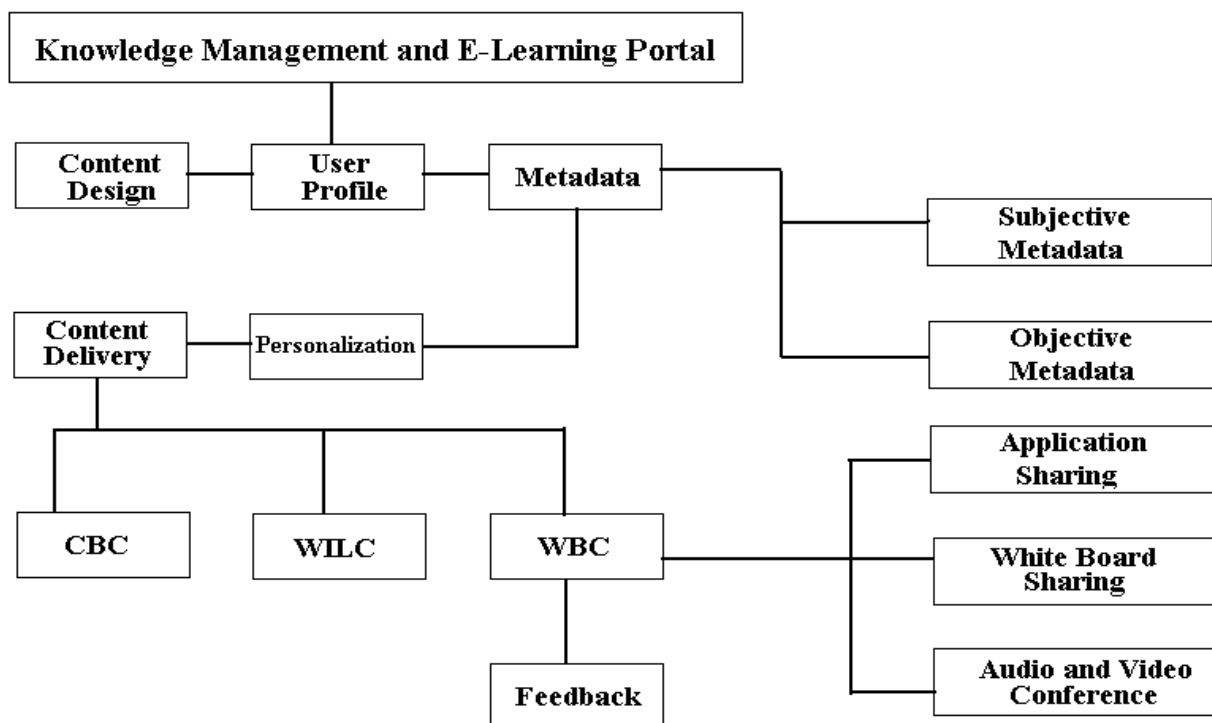


Diagram - I

- Deciding which is key content, and needs reinforcement, what material can become secondary links, and which comes under the heading of supplementary or additional learning resources.
- Doing a walk-through and checks on time allocations for each learning activity ; congruence between assessment and learning content and learning tasks; clarity; and completeness.
- Defining and providing for the learning support needs of the students, and also for teachers if the material is to be used by others.

In future, content management software such as vignette and autonomy may play a critical role in management the e-learning content.

User profile

E-learning environment may become a large knowledge repository where a knowledge worker's orientation can get complicated .or better convenience ,push technology could be used based on the knowledge worker's interests and needs

profile and knowledge resources making user profile may also capture the knowledge worker skills and competencies. They can be assessed with respect to expectations and be used for publishing special offers on knowledge resource collection

When enhancing the content, context and structure of learning resources with formal semantics, a flexible and customized knowledge mastering process can be created.

Metadata

Metadata as an information set has two parts: objective and subjective.

1. Objective metadata

It provides factual information about the content, most of which is usually generated. The objective metadata includes information such as author's name, data, unique identification number and also includes details of corporate houses, education, universities and organization.

2. Subjective metadata

The subjective metadata is, however, more critical as the user or a group of users creating the metadata can determine its values. The actual context of the content can easily be one of the attributes that content is filtered when a learner searches through contextual parameters.

3. Personalization

Personalization of content enables users to create their own personal workplace according to a set or reference that enables them to view the content they are interested in while having all irrelevant information automatically filtered out.

For example, the hummingbird enterprise knowledge portal (EKP) incorporates a variety of unique features that allow users to create their very own web-based workspace.

Moreover, users can develop and choose from various themes that provide a personal or cooperate look and feel, as well as the ability to apply platform-specific interfaces for desktop PCs and palm devices.

Content delivery mechanism

Content in the e-learning domain can be broadly categorized into three forms: computer-based content (CBC) and web-based instructor led content (WILC), web-based content (WBC)

COMPUTER-BASED CONTENT (CBC)

Computer-based content (CBC) was the first form of technology-enabled training to hit the market. ACBC is mix of text and media content that fully exploits the high-end desktop in the market today.

CBC is a good option as it takes advantage of multi media technology. In addition to the instructions provided as text on the screen or delivered through audio, an actual video of an expert fixing a car or an expert operator working on the crane operation, can be included in the training.

CBC provides a virtual hand –in exercise on offering technology to the learner, as good as the real thing itself. However, the more recent versions of CBC are providing real-life simulation to even as complex a task as operating a crane using emerging technologies such as virtual reality mark-up language (VRML)

Web-based instructor –led content (WILC)

Despite the internet boom and the extensive availability of content available over the web, the most popular training continues to be instructor-led because it offers more interactivity and collaboration according to the critics of e-learning. in a sense, this is true.

Technology has now hijacked the most popular training mode of instructor-led instruction through web-based instruction-led content (EILC) offerings. Deployed through software such as centra and Web X, WILC can be delivered to learners at remote locations and help to bring them together in a virtual class with multiple learners and instructors.

In addition to onlone, synchronous collaboration between the learners and the experts, WILC also enables for following.

- a) Application sharing- this enables both instructors and learners to share live application with all the learners. The instructor can pass the control of application to any student.
- b) Whiteboard sharing- instructors and learners can emphasise a particular part on the screen through freehand drawing or shapes that can be viewed by the entire class.
- c) Steaming of audio or video- advanced and integrated audio and video conferencing technology supports concepts such as virtual teams, communities of practice, telecommuting, and remote conferencing, which aid collaboration between the experts and learners.

Web-based content (WBC)

A lot of enthusiasm surrounded the shift from instruction –led training to technology-based training. but as the dust began to settle, critics pointed out a number of problems related to computer-based content .

In addition, the packaging of content of floppy disk drives and CDs was also seen as a hassle in the distributed of content.

While trying to reach out to more learners and to control the communication from a single point, content providers found web to be an effective delivery medium.

Web –based content has filled the gap rampant in computer-based stand-alone content, by connecting communities of learners via the internet. It has also enabled learners to be in touch with experts.

Feedback

Effective user feedbace-learning environments try to collect and take user feedback into account. Again this is a characteristic that has not yet been completely discovered, researched or effectively discovered, researched or effectively implemented in most systems.

SPECIAL features of knowledge management and e-learning

- The main focus on e-learning and knowledge management is how to allow organization and people to optimize the knowledge acquisition process.
- E-learning and knowledge management issues converge to cope with new paradigms, promoting” doing while learning and learning while doing.”
- Both e-learning KM strategies depend mainly on soft issues in organization-people, motivation, trust, sharing, organization culture and interpersonal networks and relationships.
- KM and learning management are two complimentary disciplines that are continuously growing closer and support an innovative and agile enterprise.
- In fact, as stated in the overlap between e-learning and knowledge management is now widely recognized and smart enterprises are already in the process of integrating them to better leverage resources and eliminate duplicate activities.

Knowledge management and need of the day

Information is one of the most critical aspects in the digital age –structured and useful information, which is accessible through multiple channels and available on demand is the expectation of the modern era. In order to fulfill that need, effective knowledge is required otherwise everyday we can get overburdened with so many instructed and adhoc information, and in this content burst we may lose useful and valuable piece of knowledge. Truly speaking, KM is basically an operational strategy to manage information starting from identification, creation, categorization and representation, and finally archiving. Today, each organization applies its own way to manage the knowledge. But when an organization grows bigger and bigger, it becomes a great challenge to effectively do KM because so many employees are attached to it and thus collaborative KM comes into the picture. Besides that when we look beyond the organization, through social networks so many knowledge elements are floating discretely that later gets lost where effective and standardized mechanism is needed to give value to that knowledge so that it is maintained and reused in a better way. In this way, KM needs more attention within and beyond organization limits.

Classical knowledge management and its life cycle

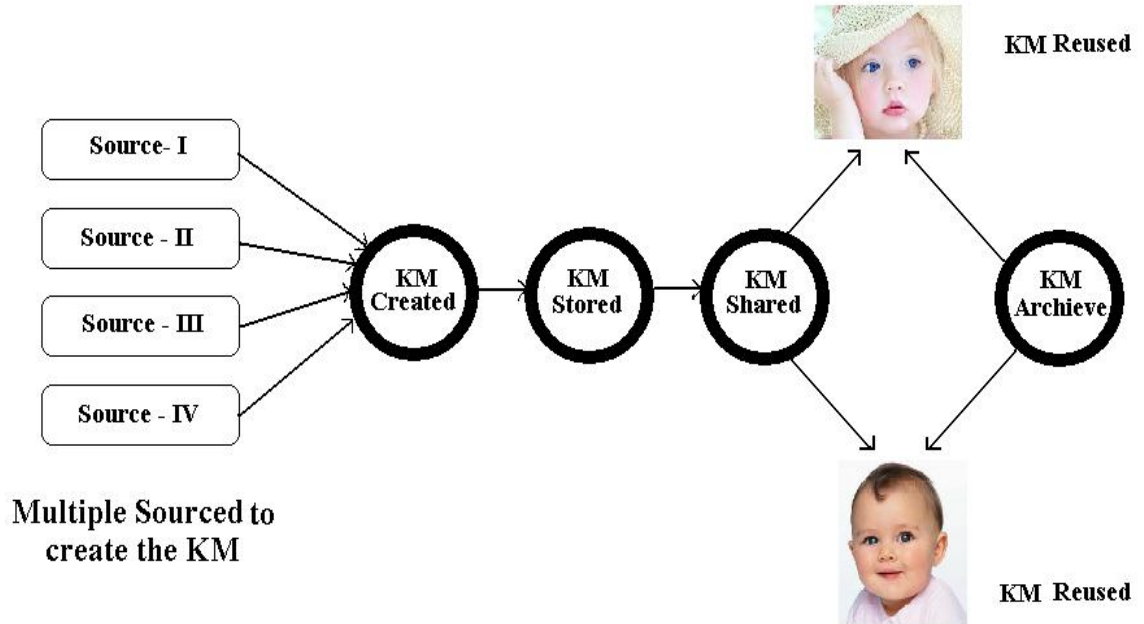
Knowledge management is a combination of process, method, and tooling support for managing the knowledge, it constitutes knowledge creation, storage, retrieval, sharing and bread casting, and finally usage and later-archival.

The concepts of classical knowledge management are to convert, raw. unprocessed chunks of data to processed information and maintain the same for greater usage and update. Every known KM technique is present to collect the raw data, and convert into meaningful information that can help to build the knowledge. The raw data on a particular focus area is taken from various inputs, such as:

- Hard copy documents
- User feedback
- Lessons learnt
- Best practices

The above data is collected through various IT tools, such as system. Generated communication, content management systems, document management systems, and other knowledge gathering and formalization of data. In today's world, web 2.0 also plays an important role in creating and disseminating knowledge through wikis, communities blogs, RSS feed etc. Now let us see the life cycle of traditional knowledge management below.

No change in knowledge Management during its Journey



Diagrams - II

Knowledge creation- There can be two kinds of knowledge-one is explicit knowledge, which is already represented in a tangible formal like papers or electronic media and the other is the tacit knowledge, which is there in people's minds. It is very important to extract that knowledge and put the same in tangible format so that it can be reused by others so both inside and outside of organization, it is important to create knowledge from different formats or types of sources and raw information.

Storing knowledge – Once knowledge gets created, the next important fact is to store the same for broader usage. In today's world, wikis host a lot of knowledge materials. Moreover, knowledge is stored in an individual's hard disk drive in a great manner. But effective use of knowledge greatly depends on its accessibility, publishing the same and it should have good storage mechanism.

Sharing knowledge – The next important thing is to share the knowledge among the community, peers, and interested groups who can benefit out of that. In organizations, knowledge is distributed through mails, gets broadcasted, uploaded in wikis, shared through communities, and so on. Now beyond this organization boundary there lies a

huge social crowd which can significantly contribute in knowledge ,through not organizational confidential knowledge .

Usage-

The next step is to leverage the knowledge effectively. Getting the knowledge on time when required is vital in traditional KM world, if anyone does not store the same in their own drive or save the link then it involves real search.

Archiving-

Knowledge needs to be achieved at a certain point in time. The world is moving at a very high speed, technology is changing rapidly; therefore, knowledge/ technology which is relevant today may not be applicable for tomorrow and that's when we need to achieve the same at a certain point in time.

Pitfalls of traditional knowledge management and changes required in the modern age

There are a number of disadvantages and areas of concern which make the current implementation of knowledge quite problematic:

- a) Too many standards being followed without any universal alignment.
- b) Duplication of information
- c) Right information not present in the right place many situations.
- d) Information overload
- e) Maturity and importance of information not rated.
- f) Extremely costly mechanics for performing knowledge management.
- g) Asynchronous mode of information gathering.

The following things need to be changed immediately in the knowledge view paradigm:

A) Alignment to one standard way of managing the knowledge .

b) use the power of web 2.0/social net working to:

- * Hardness information through existing communication, wikis, and blogs.
- * Use mashups to retrieve valuable required information.
- * Reduce costs as using web 2.0 controls are mostly free: and
- * Use tagging and folksonomy to mark and propagate important information.

Some of new technologies and their use in teaching and learning

* screen casting allows users to create screen casts directly from their browser and make the video available online so that the viewer can stream the video directly. With the help of this, the presenter has the advantage to show his ideas and thoughts visually rather than simply explain them, e.g. HTML Help online.

* Podcasting publishes files on live that allows for availability of syndication and distribution subscriptions. podcasts are typically in MP3 format but other types of files such as video can also be podcasted for example, sample podcasts –<http://k12handhelds.com>

* RSS feeds are useful in pulling out specified contents from web-sites and finding them to user's computers, where it can be stored and can be viewed later e.g. www.webopedia.com

* Blogs are the websites where we can read subscribed stories, opinions and links. for example, blooger.com and <http://buzznet.com/>

* Digital storytelling lets individuals publish in other websites. For example, <http://blogger.com> helps in crystallizing an art of creating a powerful dialogue by narrating a story, weaving images, music and voice using the power of digital media design. The sharing of these stories with others can connect people in special ways, e.g. photo story tool.

* Voice applications help in making free phone calls around the world. 'skype' is a free and simple software through which free phone calls can be made to anywhere in the world. 'skype' uses p2p technology to connect you to other users.

* Delivery tools help in delivering online lectures, conducting online tests, and quizzes, and live interactions between teachers and students.

Building a knowledge society

The education system has, therefore, to develop its models of education that would take into account the emerging future scenario of connected societies and create a virtual or cycle infrastructure to support development and infrastructure towards building a knowledge society. The task is to develop a new paradigm of education aimed at transforming the existing society into a new knowledge society adopting and adapting

new processes of information to support lifelong learning (L3) and learning for sustainable development (LSD) .Teachers can help develop skills and capabilities required for building a knowledge society. Therefore, they need through orientation in the latest pedagogies and technologies to develop relevant competencies and capabilities among the learners .It is possible only with the use of ICT and e-learning.

With the evolution of internet and proliferation of computing devices all over with the progression of time, the tools are going to change ,through their basic essence would remain the same, that is, imparting knowledge and learning experiences to the students by creating a congenial environment for learning.

How social networking can play a creative Role in knowledge Enhancement.

Social networks are the most commonly used medium to exchange information in today's world be it within an organization or outside an organization through the various popular available networks .This social media is an untapped area of extremely critical and and viable information. social media should be one of the main inputs to the KM decisions of any entity .Not only does it become much more cost effective, but also the inputs become much more **clear and defined.**

A standardized structure of the knowledge elements for social network.

Giving shape to unstructured knowledge in order to become structure knowledge in social world is very essential. The concept is to think about a standardized structure and definition of knowledge element which can flow the social networks. so we need to think about a meta modes that defines a set of parameters that must be there when a knowledge element is created for the social world. It must conform to a uniform standard following which any knowledge can turn into a social knowledge element some of these parameters are content type, tagging information , actual content, and possible audience .There can also be a set dynamic parameters which are viewed by a number of people and updated by a number of people .These parameters are dynamic in nature because they get updated during the journey of knowledge element through social population and knowledge gets enriched, reused ,and refined in its trajectory.

Benefits of e-learning and KM

*The programme's usefulness- children can satisfy their intellectual demand and may improve their thinking and time management skills.

* It gives students with barriers to being physically present in a classroom equal access to education.

- It instructs at a pace-faster or slower-that is individually more suited to some students' learning needs.
- The programme fits into non –traditional schedules or some students' learning styles better than traditional classroom study.

Limitations of e-learning and KM

- E-learning reduce time for social activity of the learner.
- Knowledge evaluation is not as for on –site education.
- The communication structure may not fit learner's habits: many prefer talking to typing.
- Often, teaching a subject is replaced by teaching technological skills.

Some institutional initiatives taken include-

IGNOU's national TV channel for education is going to have about five more channels to support higher education, school education as well as agriculture.

* Maharashtra knowledge corporation Ltd. has established a network that covers 330 blocks out of a total of 360 in the state and is also developing software for digital college ,digital library, digital university, learning and content delivery management systems.

Conclusion

The use of KM in e-learning will definitely impact the quality of the education that is delivered and deliverability of information through knowledge and information sharing. Today's organization is knowledge focused, and characterized as a learning organization, because it generates its feature as it learns how to grow its most important knowledge assests. In spite of some obstacles and limitations in the immediate implementation ,it is clear that knowledge management and e-learning are the way of the future in the field of distance online education.

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