



Knowledge Management Through E-Learning

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Abstract --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 Management (KM) is required otherwise everyday we can get overburdened with so many unstructured and adhoc information, and in this content burst we may lose useful and valuable piece of knowledge. This paper deals with the importance of Knowledge Management and the need of E-learning Tools which have a great potential in creating, sharing and reusing knowledge in both academic, institutions and organizations.

Key words--E-Learning, Knowledge database, Learning Management System, Social Networks, Delivery Tools.

I. Introduction

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 management (KM) is required otherwise everyday we can get overburdened with so many unstructured and adhoc information, and in this content burst we may lose useful and valuable piece of knowledge. Truly speaking, Knowledge management is basically an operational strategy to manage information starting from identification, creation, categorization and representation and finally archiving.

In general, Knowledge Management is regarded as a series of interrelated activities, such as knowledge identification, reuse, maintenance and development that help society in taking right decisions in an appropriate way. As a powerful source, Knowledge Management and e-learning work together in letting users obtain their requirements in the form of correct and complete information. In an organizational context, the concept of KM could be defined as actions taken to create, save and reuse the organization's knowledge. 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 knowledge 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 knowledge at the right time, right place, in the right form and to the right knowledge worker. Therefore, to address issues like how to capture, represent, manipulate, utilize, and to share knowledge 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.

II. Importance of E-Learning

It is possible to manage content through e-learning systems, as knowledge is a source of power which must be shared and acquired. Therefore, e-learning helps in providing platforms which people can consider for sharing and enriching their experiences and information without being limited through time and place. It offers to study topics on demand and saves time and cost. It helps in better memory and recollection because it combines images with words; combines sounds (voice or music) with images; uses multiple types of media. It also uses color combinations and designs that flow with the natural movement of the eye.

Knowledge databases are usually available on software websites and offers indexed explanations and guidance for the software-related questions. They help the users to perform the specific tasks through step-by-step instructions set. These techniques are moderately interactive as one can either choose a key word or phrase to search the database or can opt from the alphabetical list. Similarly, online support is also a method of e-learning which is

very similar to Knowledge database. They are generally in the form of forums, chat rooms, email, or live instant messaging. It offers users more interactive opportunities through specific question and answers.

Visualization should help in understanding the substantial collection of various types of data. It should be able to provide frame work for analyzing longitudinal and sequential data by considering several misleading data or information. The tools should be user-adaptive and should be developed to understand a given condition. Visualization should be useful in data construct considering merging different types of information into a single representation.

III. 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 viewers 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, ex: HTML HelpOnline.
 - Podcasting publishes files online 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 websites and feeding them to user's computers, where it can be stored and can be viewed later, for example., www.webopedia.com
 - Blogs are the websites where we can read subscribed stories, opinions and links. For example, blogger.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 helps 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' (<http://skype.com>) uses P2P (peer-to-peer) technology to connect you to other users.
 - Delivery tools help in delivering on-line lectures, conducting online tests and quizzes and live interactions between teachers and students(refer Fig.1). For example, Moodle -<http://moodle.org/>

IV. E-Learning 2.0 Tools

There are many open source software applications like Moodle, Eduplone, Claroline and Sakai which ensures users to have long-term access to the best available learning management systems (LMS) in a collective e-learning form. Today, there are more than 250 commercial LMSs. On the other hand, collaborative learning theory says that human interaction is a vital ingredient to learning. With the help of blogs and Wikis, a different class of e- learning 2.0 software has emerged. E-learning has given a new approach to individual learning to the changed into institution learning through complementary tools and web services that create ad hoc learning communities.

For examples of e-learning 2.0(refer Fig.2) are given below:

- 1 Edublogs.org and Wikispaces.com are the two examples of blog and wiki resources for e-learning
- 2 Think free (see Fig.3) can replace Word, Excel and Power Point with its suite of online applications.
- 3 Apple offers free podcast hosting for education (iTunes U)
- 4 Easybib (see Fig.4) is a tool that takes the pain out of creating a bibliography.
- 5 Zotero (see Fig.5) is useful in collecting, managing and citing the research sources from within the web browser.
- 6 On-line calculator's examples are Calcoolate, Calcr, E-Trutor Graphing Calculator.
- 7 ReadWriteThink (see Fig.6) printing press enables users to create a newspaper, brochure etc.,
- 8 Facebook is an example of smart social networks.
- 9 Google offers :
 - ✓ Google apps for Education (includes Gmail, Chat, Calendar and Page Creator)
 - ✓ Google for Educators, described as " a platform of teaching resources"
 - ✓ Google docs and Spread sheets- on line office tools and On-line Calendar apps- Google Calendar.
- 10 On-Line study aids that help to find answers are Wikipedia, Yahoo! Answers etc.,

These tools are useful in improving the eminence of teaching resources. Through these tools teaching materials can be well-organized and they can be shared to exchange knowledge. Teachers and students can effectively

search and share valuable teaching knowledge in order to satisfy their teaching and learning demands in e-learning.

This article hints at the current Web 2.0 activity taking place in e-learning space having two way communications and collaborations. Tools such as Wikispaces, Easybib, Zotero, ReadWriteThink press, Facebook, Google apps, Apple's podcasts are often motivated by the needs of the institutions and supports the creation of ad hoc learning communities.

The effective role of these tools can be judged by calculating ROI(Return On Investment) for which information technology and Human Resource Department must work simultaneously for better applications.

Fig : 1

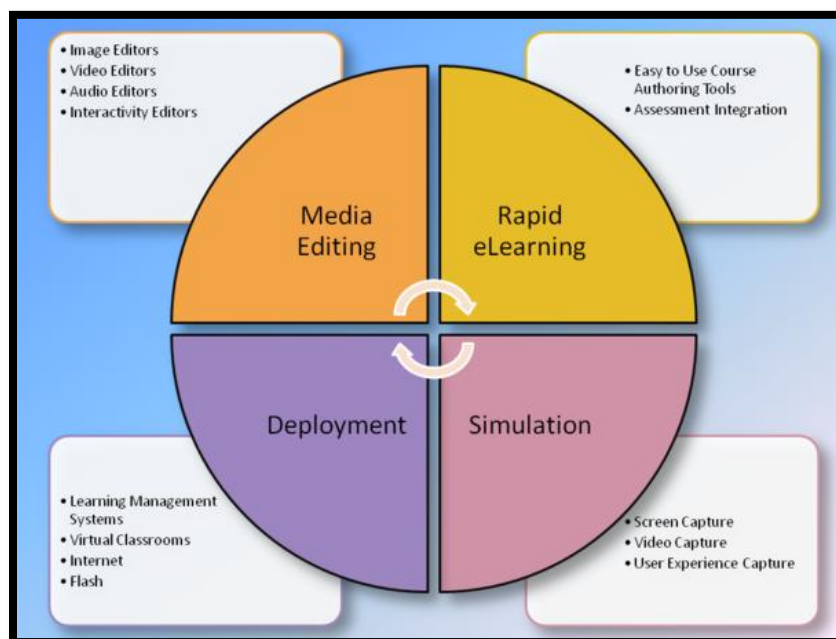


Fig : 2



Fig : 3

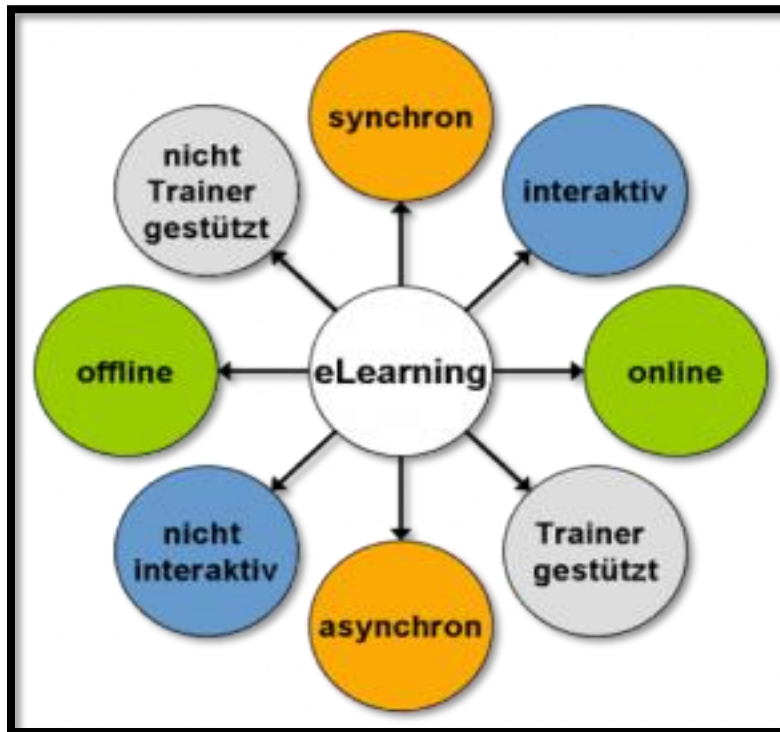


Fig : 4

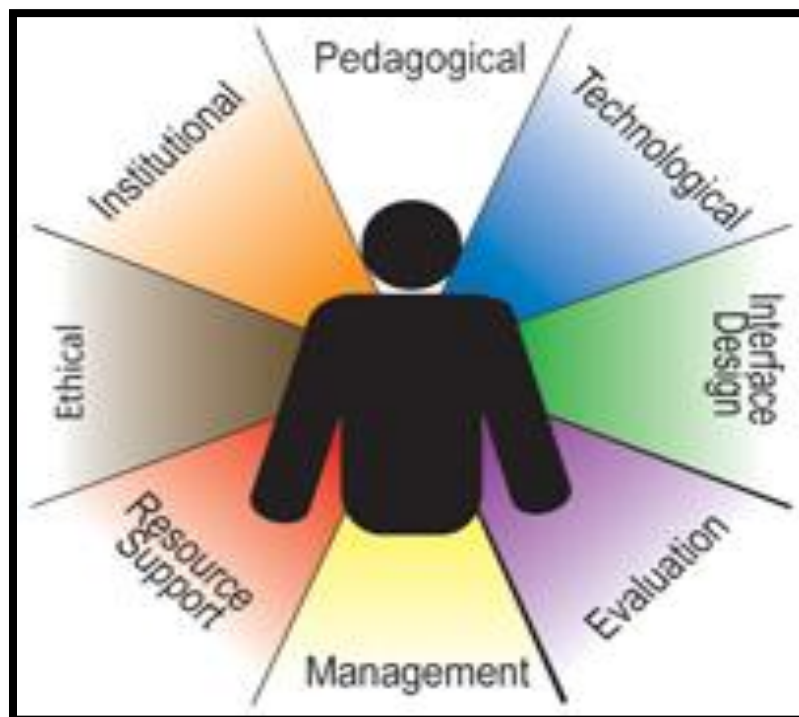


Fig : 5

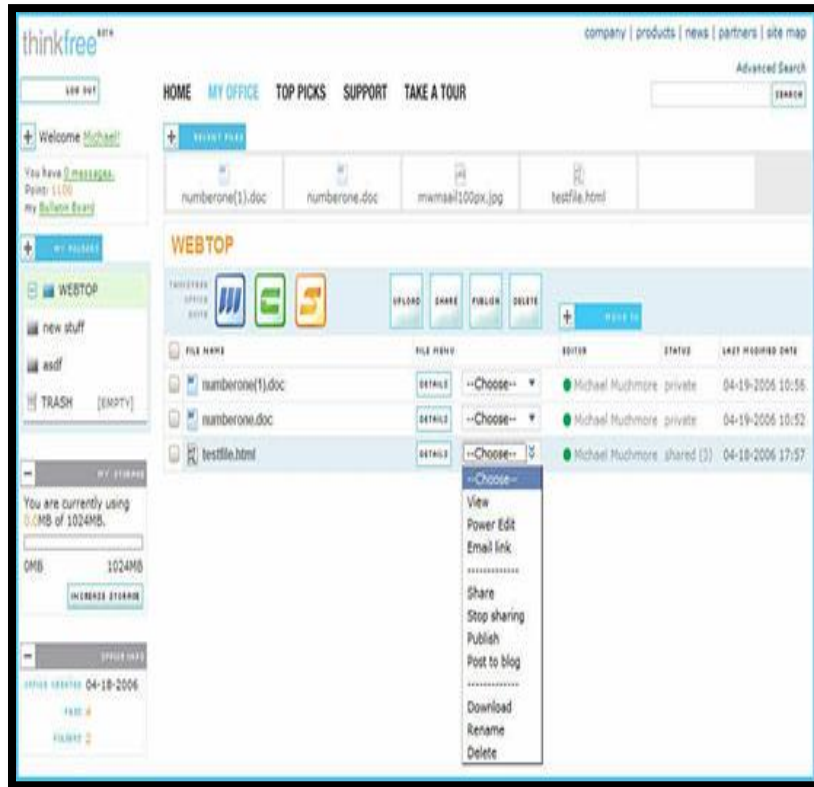
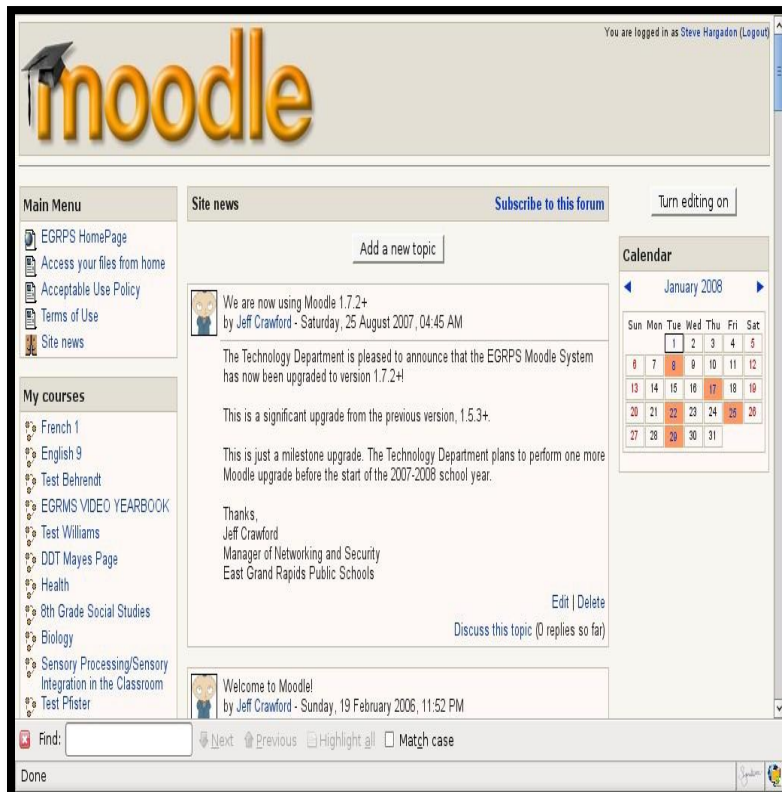


Fig : 6



V. Conclusion

Thus by bringing in effective visual tools in e-learning students, teachers, educational content providers and institutional decision makers would be highly benefited as they can easily improve upon their learning process. The potential of visualization in science related fields is very high as it uses multimedia resources and goes beyond richer text and even static pictures. When e-learning tools are used, instructors can take suitable measures to monitor the content, diagnose the problem and take immediate action to prevent or overcome those difficulties. E-learning tools have great potential in creating, sharing and reusing knowledge in both academic institutions and organizations.

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