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E-learning as an extending tool of Knowledge Management

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Abstract. Acquiring the knowledge by distant education begins to be more and more popular. The main reason of this dynamic development is caused by easy access to the Internet and general IT infrastructure. Nowadays acquiring of knowledge is essential in context of increasing qualifications or education. In such quick technology development traditional forms of learning and teaching are partly inadequate. Consequently teachers and professors look for fresh and new forms of sharing the knowledge with students, but also possibility of verify students abilities. The main goal of the article is to present connection between Knowledge Management and E-learning. The first part describes e-learning concept, the second part highlights Knowledge Management process and the last part describes KM and EL integration.

Keywords: educational methods, university education, e-learning, knowledge management

1 Introduction

Undoubtedly one of the main thing which made mankind different from other advanced species is the fluent ability of learning from each other. In fact intensity of learning process presents also the dynamic of development of modern societies. That is why this is so important to research area of learning and improve the methods of teaching which can have great influence on new generations. Definitely it is easy to noticed that education is area which is often neglected mainly because it is not the space which brings immediate measurable profit. For so many years in schools and on the universities the methods of teaching are almost unchangeable. Despite the technologies in many fields are changing the education and education methods are more less the same. Education supposed to change with the same dynamic as global trends and technologies. The main purpose of this paper is to present that knowledge management can be used in effective way as a e-learning. Organization are more and more interested in knowledge management. The main reason is because KM preserving and systematizing available knowledge. Undoubtedly the Knowledge Management is essential tool for proper functioning of the organization, but it is important to highlight that deployment of KM involves instruments and techniques from broad range of disciplines.

2 The progress in e-learning concept

Without doubt the dynamic popularization of the Internet was the biggest reason for such broad availability to resources for both students and teachers. This situation let to share and acquire enormous amount of data and information. E-learning includes creating materials for studying, teaching learners, but also regulating courses within organizations [1]. It is difficult to sum up the idea of e-learning in one definition, mainly because it is constantly changing. Such different perception is caused of specific professional approaches and interests. The development of distance education caused by new technologies and the impact of computer scientists initiated new challenges like how to make integration such technologies in organizations especially in context of lifelong education process. It is possible to emerged four main categories of e-learning definitions [2]:

- 1) Technology driven which contains technological context of e-learning as a key topic e.g.: "E-learning is the use of electronic media for a variety of learning purposes that range from add-on functions in conventional classrooms to full substitution for the face-to-face meetings by online encounters" (Guri-Rosenblit, 2005); "E-learning is the use of technology to deliver learning and training programs" (E-learning portal, 2009).
- 2) Delivery system driven which focuses on access to knowledge and the access to resources rather than some achievements e.g.: "E-learning is an on-line education defined as the self-paced or real-time delivery of training and education over the internet to an end-user device" (Lee & Lee, 2006); "E-learning is the delivery of education (all activities relevant to instructing, teaching, and learning) through various electronic media" (Koohang & Harman, 2005)."
- 3) Communication oriented which includes more interactions aspects like communication and collaboration tools e.g.: "E-learning is education that uses computerised communication systems as an environment for communication, the exchange of information and interaction between students and instructors" (Bermejo, 2005); E-learning is defined as learning facilitated by the use of digital tools and content that involves some form of interactivity, which may include online interaction between the learner and their teacher or peers" (Ministry of Communication and Technology of New Zealand, 2008)"
- 4) Educational-Paradigm driven which consider e-learning as a new proposition of learning and as a development of previous educational paradigm e.g.: "E-learning is a broad combination of processes, content, and infrastructure to use computers and networks to scale and/or improve one or more significant parts of a learning value chain, including man-

agement and delivery” (Aldrich, 2005); “E-learning is defined as information and communication technologies used to support students to improve their learning” (Ellis, Ginns & Piggott, 2009).

This variety definitions present how comprehensive and complex is the idea of e-learning and how broad area is to explore [2].

| Advantages | Disadvantages |
|------------------------------|---|
| Time flexibility | Limited social interaction |
| Updated content | All responsibility is on the learner side |
| Possibility of customization | Development costs |
| Location flexibility | Reduced individual attention |
| Fast access to feedback | Technology dependent |
| Unlimited learning materials | |

Fig. 1. E-learning advantages and disadvantages. Source: own elaboration.

2.1 E-learning nowadays trends

E-learning functioning in spheres of business and society for several decades and for sure the trend of develop in this field will be strong. The mechanism of delivering knowledge by electronic method seems to be simple but the Information Technology grow and it flexibility empowers variety different approaches and deployments of new learning methods e.g.[3]:

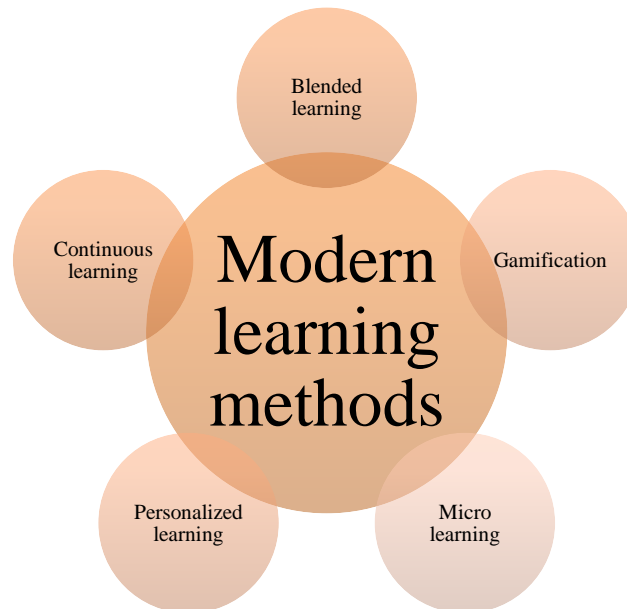


Fig. 2. Modern learning methods. Source: own elaboration.

1) Blended learning- can be described as a process of mixing two or more methods of teaching like, job tasks pedagogical methodology, instructional technologies and web-based technologies. Blended learning combines traditional teaching methods with digital teaching techniques which complement each other depending on the course needs.

2) Gamification is the process of expending e-learning abilities by including game elements, which involves people in commerce and education sectors. The most demanding part of gamification process is creating the player experience which can be divided into creating a gaming application and establishing its exercises in logical sets. In this method the main focus is to design part in such way that the learner achieve goals quicker. Such attitude to learning can be useful especially to build skills, mainly because it gives chance to practice and gets feedback. At the same time it is engaging, fun and satisfying for the user.

3) Micro learning is the learning when there is short and limited time and the material to learn is simple and small, the educational program is divided in parts of modules, the process is repeated and synchronous, used medium is traditional or e-medium, the method is designed for classroom or corporate.

4) Personalized learning offers chance for a user to be a part of creating the content but also the structures of the learning service, in this case user doesn't rely on provided service but have real influence on learning offers.

5) Continuous learning can be described as a constant pursuit for knowledge and skill for own or career goals. This trend can be perceived as an extension and help to traditional education. It is possible to specify 3 principles of continuous learning: learner centrality, equality of opportunity, high quality and relevance.

Definitely the distant learning is very convenient but it seems there is not possible in near future to replace completely traditional education. Direct communication and contact between teacher and student is still very important issue. That is why combining both of forms (b-learning) allows much more opportunities for students and teachers to improve the whole process of education.

3 Today Knowledge Management aspects

Knowledge management can be defined in different forms as a process, system, scientific discipline, new philosophy of management. KM can be considered as an action which is needed to get the key of knowledge resources. The foundation of KM was used to individuals but with the time it changed also in context of organizations. With such a big amount of information which surrounds us every day, knowledge management is perceived as a significant discipline. Peter Drucker, whom is considered as a father of KM, said, that knowledge is the essential resource and not only in the field of economic strength but also in a context of a nation's military strength. He pointed that there is a necessity to work on the knowledge in contexts of quality and productivity. Certainly nowadays the key resource for the organizations is the collective knowledge which is in deep awareness of all levels in the organizational environment like employees, clients or vendors. Identifying how to organize knowledge in enterprises gives many profits like [4]:

- developing important business competences,
- increasing level of innovation,
- empowering workers,
- creating high quality products to the market,
- improving time cycles and decision making,
- building strong competitive advantage.

The Institute of system production and projecting technologies in Berlin describe KM as a methods, instruments and tools which effects the progress of core business processes linked to the knowledge which means making distribution and storage of knowledge simultaneously by using the definition of knowledge goals and identification of the knowledge on entirely levels and fields in organization. Stewart defines KM as having a knowledge about the knowledge of particular

members of the organizations, obtaining this knowledge and organizing to use it to profit [5].

There are many more different definitions of knowledge management but most of them have some common elements. The idea of knowledge management is built on three main processes: creating, sharing and using the knowledge. In those processes the most important in knowledge management systems are: [6]

- technology (Internet, Extranet, Intranet, group work systems), used as a decision support systems or tools created for individual needs;
- systems, tools and methods which measure efficiency of using the knowledge;
- organizational culture which is focused on people which helps in process of sharing the knowledge;

In organizations the element of modern management is the knowledge with support of technologies and adaptation in different fields.

4 Knowledge Management (KM) and E-Learning (EL) integration

The integration and synergy of Knowledge Management (KM) and E-learning is not very popular topic of research but undoubtedly it is very important area to study. Collaboration is the essence element where people can both study and work together. To make collaboration happen especially in educational organizations there is tendency to implement virtual learning environment well known as an e-learning (EL). The main idea to provide virtual learning environment is to empower users to work together and engage them in process of knowledge sharing and building together knowledge management (KM). It is important to highlight that using only EL is just enable creating the content management system (CMS). In context of collaboration knowledge supposed to be acquired and shared, that is why the KM is the ideal medium for both of this elements[7].

Combining KM which is more focused on organizational perspective and EL which is more individual learning makes perfect collaborative learning environment. Such approach makes knowledge more globalized. To explain link between KM and EL fields, there is need to use terms integration and adaptation in similar meaning. Integration is used in context when both KM and EL are equal, analogous operating disciplines. Term adaptation is used when one domain is based on another, methods and tools from another domain are adapted to improve efficiency [8]. KM tools are fundamental to make major range of EL improvement thanks to extension to broader communities. Integration of KM and EL is necessary tendency in process of self-directed and just in time learning [9].

Creating intensive knowledge growth is possible due to providing collaborative learning environment in organization. EL is concentrated on individual learning rather than collaborative learning. KM maintain the human tacit knowledge codi-

fication into physical form in order to learning. EL systems ensure support and develop of users knowledge through design structure of learning contents and intercommunication options. However KMS (Knowledge Management System) deliver knowledge to CMS (Content Management System) to sort and search amenities and also cooperation chances between experts and other users. KM and EL integration processes enable to develop synergy which is essential in improving the formation of new knowledge but also the creation of learning processes [10].

Definitely integration of KM and EL is an inevitable tendency in processes of self-directed and just in time learning but also significant support in process of sharing the knowledge in organizations. KM processes which take part in context of learning are[7]:

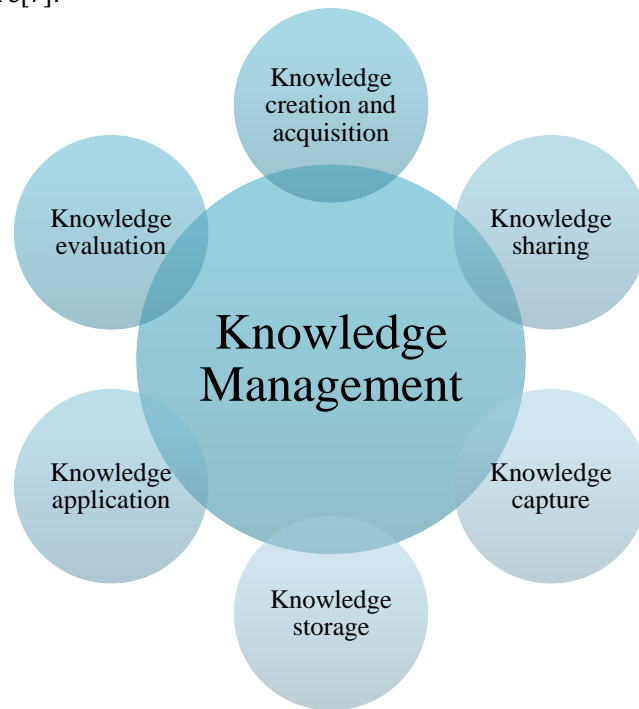


Fig. 3. Knowledge Management process connected with e-learning. Source: own elaboration.

- Knowledge creation and acquisition, which include increase amount of people with knowledge both individual or groups which practicing to gain the knowledge in form of intangible tacit knowledge;
- Knowledge sharing which include creation of learning process while people are interested in helping each other to grow and gain new knowledge;

- Knowledge capture which is about converting tacit knowledge into explicit;
- Knowledge storage which is knowledge repository which contains databases, documents or reports.
- Knowledge application where created and captured knowledge is used in variety learning contexts;
- Knowledge evaluation which include assessing learners for verifying knowledge which supposed to be relevant and accurate.

5 Conclusions

Today organisations need to learn from own experiences and have tools to collect best practise and have possibilities to learned from other organisations. Defenitely the importance of knowledge management is increasing especially because of the connection between knowledge and learning in organisations.

Environment connected with e-learning can be used as an effective medium for knowledge management, in many organizations knowledge management is strongly concentrated on the connection between learning and knowledge. Learning always supposed to combine theory with practice and knowledge with experience[11] Such attitude is different from traditional learning but it doesnt mean that traditional learning will be completely insignificant. It seems that now the best solution is still to combine the modern methods with this more traditional.

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