AN ANALYSIS ON THE IMPACT OF MULTI AGENT BASED E-LEARNING SYSTEM

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ABSTRACT
The rapidly growing use of technology in education is changing the way in which knowledge is produced, stored and distributed. Online education has already been accepted as the way of the future; knowledge may be distributed across both time and space. Knowledge Management (KM) techniques can be used to capture, organize and deliver this knowledge and management systems can be used to quickly identify the most relevant information and distribute it to meet specific needs. In this paper, light is shed on the basic concepts of KM and Multi Agent–Based e-learning. A discussion on how KM and Multi Agent–Based e-learning can be integrated and leveraged for effective online education and training is presented.

Keywords: Knowledge Management; Knowledge Management Models; Knowledge Management Processes; Multi Agent–Based e-learning Systems.

1. INTRODUCTION
Recent research reveals great interest in introducing Knowledge Management (KM) ideas to e-learning systems. It is argued that KM can facilitate an e-learning system (Denning, 2000). The joint studies of KM and Multi Agent–Based e-learning point out the same fundamental goal: facilitating organizational learning. Researchers try to analyze the similarity of the goals, methods of assessment and some knowledge-sharing processes both in KM and Multi Agent–Based e-learning. In this paper, the main features of Multi Agent–Based e-learning that benefit the KM approach are discussed. At the end, an integrated approach between KM and Multi Agent–Based e-learning is introduced.

2. KNOWLEDGE MANAGEMENT PROCESSES AND SYSTEMS
A strong technological infrastructure is a prerequisite for implementing KM successfully.

However, the technological aspect is not the whole aspect of KM. There is also a human-oriented approach that focuses on the management of the developers and owners of the knowledge and their activities. Both sides are essential in order to fulfill the key characteristics of KM as a whole. The purpose of a KM system is therefore to organize the storage and manipulation of knowledge. Its basic functionalities are to generate, store, distribute and apply knowledge. The processes that can be seen in a typical KM system are depicted in Figure 1.

3. ARCHITECTURE OF SCSVMV E-SCHOOL
The proposed architecture discusses about enhancing E-Learning. The functionality’s provided by the system include, web mining, learning content management, text based search engine. The SCSVMV e-school has the following major components:
1. Text based search engine for mining the Learning Content
2. Information Extraction and Automatic Annotation
3. Digital Library and Content Search
4. Personalization and Content Recommended System
5. Learning Applications

Figure 1: The Knowledge Management Processes
4. DATA RETRIEVAL FROM THE DOMAIN AND WEB

The text based search engine is created, which is capable of extracting the documents from open source learning objects. Document retrieval is based on the occurrence of computer application based terminologies and keywords based on the user search text. Considerations taken for document retrieval are mainly considered here are both on positional and relationship. Each and every time when texts are entered for document retrieving, the Keywords & computer application based terminologies are extracted from the texts that are to be searched for documents.

![Figure 2: Architecture of SCSVMV e-school](image)

A study has been conducted to know the impact of Multi-Agent with Mining Technology based e-learning in education sector. The study intends to analyze and find out the difference between the traditional teaching method and teaching by using e-learning among the PG students (Total No. of Students 512) of SCSVMV in concepts of Java Programming. The results of the study show that the systematic use of Multi-Agents with Mining Technology as a part of the instructional design process will improve the quality of teaching and learning and it plays an important role in LC MS.

5. CONCLUSION

The basic concepts of KM and Multi Agent–Based e-learning systems have been outlined. A combination of the advantages of both domains facilitates the delivery
of high-quality education for satisfying the specific educational needs of team members. The use of KM in Multi Agent-Based e-learning will definitely impact the quality of the education that is delivered and the deliverability of information through knowledge and information sharing. In spite of some obstacles and limitations in the immediate implementation, it is clear that knowledge management and Multi Agent-Based e-learning are the way of the future in the field of distance online education.

REFERENCES


