An Adaptive Course Materials Selection into a Multi-agent based e-Learning System

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Abstract

Modern information and communication technologies are emerging in all segments of life, including education. Affordable digitalization and low-budget content development allow for virtually unlimited access to shared knowledge. Formal education is already more or less supported by such additional material everywhere. Methodologies are developed to support automation of content management, as well as to tailor-make material suggestions and delivery according to individual learner's preferences. Such an adaptive approach inevitably faces challenges like following individual learning habits and behaviour, maintaining an up-to-date knowledge and evaluation coordinative instances, along with credible low-budget media development keeping pace with the curricula evolution. An integrated Intelligent Agent-Based University Information System (IABUIS) is successfully implemented at the Faculty of Natural Sciences and Mathematics with the University Ss. Cyril and Methodius, in Skopje. An AeLS (Adaptive e-Learning System) within it, attempts to propagate faster individual learning curves by employing agent-based system consisted of agent-based algorithms for adaptive interaction with the consumers (students), and adaptive content/course selection and delivery of
appropriate material intended for improved knowledge acquisition, thus better learning results - subject of official examination. This paper presents latest improvements in the user - AeLS interaction point.

References

Index Terms

Computer Science
Information Sciences

Keywords

Adaptive e-learning system, Intelligent agents, Integrated university information system.