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International Journal of Computer Applications

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Volume 50 - Number 9

Year of Publication: 2012

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10.5120/7800-0921

{bibtex}pxc3880921.bib{/bibtex}

Abstract

This paper introduces a solution for the problem of dealing with the student personalization in e-learning and virtual classrooms. Dual problem relating to LOs presentation in the best appropriate way to the student and conduct the tests in a way that allows him to answer according to his cognitive style and giving him more trials to answer . IMS SS describes the organization of LOs in hierarchical manner, as a tree allows to deliver LOs in sequence and more verifiable . Petri Net offers the ability of using conditions within the learning process and then respond to the result of the condition. learning environment is divided into three layers. DM, AM and RM. Through the relationship and interaction between these three layers we can control the sequence and organization of the learning process . Student model is the core of adaptive learning since it determines the behavior of the system adaptive process . It has been studied the most important student characteristics required in the adaptive process mainly the different patterns of cognitive styles . This paper discussed the design of the adaptive learning process basing on these concepts. We got integrated design provides learning activities either LOs or tests in sequence and adaptive to the student cognitive style . This system evaluates the knowledge of the student beside his new cognitive style which should be used in the next

concept presentation . The paper discusses also the full environment of this system through the design of models required to achieve the objective as well as services, infrastructure, and some additional services that can get benefit from the system such as adaptive chat room .

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Index Terms

Computer Science

Learning

Keywords

adaptivity cognitive style domain exercise stereotype