Abstract

E-Learning 2.0 ecosystem has turn out to be a trend in the world nowadays. The term E-Learning 2.0 ecosystem was coined that came out during the emergence of Web 2.0 technologies. Most of the researches overlook a deep-seated issue in the e-learner’s foregoing knowledge on which the valuable intelligent systems are based. This research utilizes the e-Learner’s collective intelligence knowledge and extracts useful information for appropriate target courses or resources as a part of a personalization procedure to construct the e-Learner’s collective intelligent system framework for recommendation in e-learning 2.0 ecosystem. This research based on a novel web usage mining techniques and introduces a novel approach to collective intelligence with the use of mashup and web 2.0 technology approach to build a framework for an E-Learning 2.0 ecosystem. It is incorporated in predictive
model efficiently based on back-propagation network (BPN). A prototype system, named E-learner’s Collective Intelligence System Framework, has been proposed which has features such as self-regulation, reusability, lightweight, end user oriented, and openness. To evaluate the proposed approach, empirical research is conducted for the performance evaluation.

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**Index Terms**

Computer Science

Information Systems

**Keywords**

E-Learning 2.0  Ecosystem  Web Mining  Web 2.0 Technologies  Neural Network

Collective Intelligence

Mashup

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Recommendation