Adaptive Support of e-Portfolio Knowledge for Student Ubiquitous Learning

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Abstract

E-portfolio is a modern education platform that records the students' relevant contexts in ubiquitous learning environment. However, a student's learning context is not analyzed in the current e-portfolio platform. In this research a model was designed to provide the corresponding knowledge support for effective learning based on specific learning context. A system framework which uses advanced information techniques is proposed. An information retrieval technique extracts and analyzes key concepts to form a learning activity profile that models the information needs of students. The system can then use the profile to gather existing and new relevant knowledge contents for specific learning activity according to the context information. Instant Message and Mobile Agent techniques were used to design adaptive knowledge recommendation mechanism for student ubiquitous learning. Therefore, the system can then recommend previously documented knowledge in reasonable content type as learning support. A prototype system was developed to demonstrate the effectiveness of providing knowledge.

Keyword：e-portfolio, profile, adaptive knowledge support, ubiquitous learning