Adaptive Support for Student Learning in an e-portfolio Platform

柯志坤,吳美玉
Information Management
Computer Science and Informatics
mywu@chu.edu.tw

Abstract

Constructing an e-portfolio platform for students is a modern educational trend. However, a student's learning context is not analyzed in the current e-portfolio platform. In this research a model was designed for identifying the specific learning context and providing the corresponding knowledge support. A system framework which uses advanced information techniques is proposed. Information Retrieval (IR) technique extracts and analyzes key concepts from the student's previous e-portfolio records. Data mining technique discovers hidden knowledge rules from key concepts. Various context-knowledge views were constructed based on discovered knowledge rules. Besides, Case-Based Reasoning (CBR) and profiling techniques were used to identify learning context and design adaptive knowledge recommendation mechanisms. Therefore, after identifying current learning contexts, the system would recommend previously documented knowledge to assist the student.

Keyword：e-portfolio; learning context; data mining; adaptive knowledge support