Personalization in Learning by Knowledge Engineering with Didactic Knowledge

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Abstract

The paper proposes an approach to model, process, evaluate and refine learning processes. A formerly-developed concept to visualize learning paths called storyboarding has been applied at Tokyo Denki University (TDU) to model the various curricula for students to progress in their studies at this university. Along with this storyboard, we developed a data mining technology to estimate chances for success for the students following each curricular path. This paper introduces a concept (we call "personalized data mining") of learner profiling. This learner profile represents the students' individual properties, talents and preferences constructed through mining personal log data.