Investigating the Impact of Social Interactions in Adaptive E-Learning by Learning Behaviour Analysis

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Abstract. Adaptive Educational Hypermedia Systems (AEHSs) allow for personalization of e-learning[1]. Social media tools enable learners to create, publish and share their study, and facilitate interaction and collaboration[2]. The integration of social media tools into AEHS offers novel opportunities for learner engagement and extended user modelling, and thereby fosters so-called Social Personalized Adaptive E-learning Environments (SPAEEs)[3]. However, there has been a lack of empirical design and evaluation to elaborate methods for SPAEEs. The goal of research, therefore, is to investigate 1) the learning behaviour patterns within SPAEEs and the use of these patterns for learner engagement, 2) the evaluation methodologies for SPAEEs, and 3) the design principles for SPAEEs. Topolor[4] is a SPAEE that has been under iterative development for achieving our research goals. The first prototype was used as an online learning system for MSc level students in the Department of Computer Science, at the University of Warwick, and usage data was anonymously collected for analysis[5]. This poster focuses on system features and learning behaviour analysis. We firstly present the methodologies applied in the research, followed by the social and adaptive features that Topolor provides[6]. Then we revisit the analysis of learning behaviours[7]. Finally we propose the follow-up work based on the evaluation results.

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