Development Of A Recommender System For E- Learning Modules – Case Study

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Abstract : Extensive literature review revealed that, different recommender systems for E-learning were developed. A preliminary version of the development was undertaken and evaluated in an experiment during an introduction psychology course in an open university. The activities were integrated in to a model which operates on a network. No curriculum structure was assigned and the users were allowed to undergo learning activities in any order they wanted. Though voluminious work was reported on establishing bench marks for learning process on a wide range basis, there are only discrete references on developing a system comprising of a web-based typical learning environment which includes many aspects of learning such as course content delivery tools, synchronous and asynchronous conferencing systems, quiz models, grade reporting systems, creation of virtual class rooms etc. An attempt is made in this paper to design and develop a recommender system (RS), in the form of a software agent giving recommendations based on the previous observations. The developed RS suggests the applications of web mining techniques resulting in, on- line learning activities and improving the course material navigation. The proposed RS combines a top down ontology based recommendation techniques clubbed with bottom- up techniques. Both techniques were combined in the RS, which decided, which of the techniques is more suitable for the current situation in which a learner works. Finally the present work provides for recommendation strategies for a personal RS in E-learning models for life long learners. The major contribution of

the present work lies, in designing and developing a RS in the form of a software agent, incorporating web mining techniques resulting in, on-line learning activities, such as course content delivery tools, conferencing systems, creation of virtual class rooms, etc.