Argument-based Critics and Recommenders: a qualitative perspective on user support systems

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Recommender systems have evolved in the last years as specialized tools to assist users in a plethora of computer-mediated tasks by providing guidelines or hints. Most recommender systems are aimed at facilitating access to relevant items, a situation particularly common when performing web-based tasks. At the same time, defeasible argumentation has evolved as a successful approach in AI to model commonsense qualitative reasoning, with applications in many areas, such as agent theory, knowledge engineering and legal reasoning.

In this talk we will present a first approach towards the integration of web-based recommender systems with DeLP, a defeasible argumentation framework based on logic programming. The final goal is to enhance practical reasoning capabilities of current recommender system technology by incorporating argument-based qualitative inference. A case study will be discussed which involves applying argumentation in the classification of web search results according to preference criteria declaratively specified by the user.