

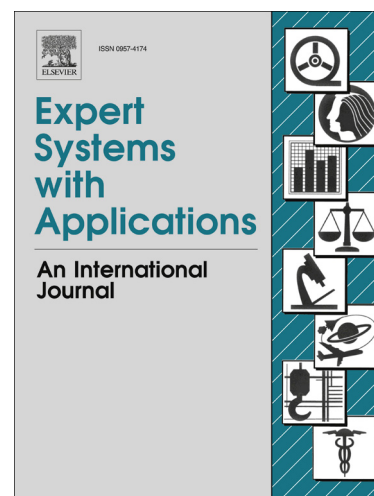
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# Improving Argumentation-Based Recommender Systems through Context-Adaptable Selection Criteria

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## Abstract

Recommender Systems based on argumentation represent an important proposal where the recommendation is supported by qualitative information. In these systems, the role of the comparison criterion used to decide between competing arguments is paramount and the possibility of using the most appropriate for a given domain becomes a central issue; therefore, an argumentative recommender system that offers an interchangeable argument comparison criterion provides a significant ability that can be exploited by the user. However, in most of current recommender systems, the argument comparison criterion is either fixed, or codified within the arguments. In this work we propose a formalization of context-adaptable selection criteria that enhances the argumentative reasoning mechanism. Thus, we do not propose of a new type of recommender system; instead we present a mechanism that expand the capabilities of existing argumentation-based recommender systems. More precisely, our proposal is to provide a way of specifying how to select and use the most appropriate argument comparison criterion effecting the selection on the user's preferences, giving the possibility of programming, by the use of conditional expressions, which argument preference criterion has to be used in each particular situation.

*Keywords:* Reasoning Server, Argumentation System, Multiple Preference Criteria, Criterion Selection

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