How to recommend configurable products? (Position Statement)

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Abstract. Knowledge-based configuration has a long history as a successful application area for AI technologies [2, 15, 10, 8, 5, 9]. Starting with rule-based systems [2], higher level representation formalisms have been developed allowing a more intuitive representation of configurable products. The advantages of these representations are faster application development, higher maintainability, and more flexible reasoning support. These representations have proven their applicability in various real-world applications. What still remains a challenging task for the configuration community is the provision of flexible and intuitive interfaces which alleviate the accessibility of complex product assortments for customers. A first step towards this direction has been conducted within the scope of the CAWICOMS project [1], where multi-attribute object rating approaches and rule-based adaptation technologies have been developed in order to improve the accessibility of configurable products. The goal of our work is to provide a general overview of recommendation approaches [3, 4, 6, 7, 11, 12, 13, 14, 16, 17] and potential applications in knowledge-based configuration processes (e.g., determination of default values using collaborative filtering approaches [6, 12, 14], etc.).

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