Preference-Based Configuration of Web Page Content

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Abstract

We present a new approach for personalized presentation of web-page content. This approach is based on preference-based constrained optimization techniques rooted in qualitative decision-theory. In our approach, web-page personalization is viewed as a configuration problem whose goal is to determine the optimal presentation of a web-page while taking into account the preferences of the web author, layout constraints, and viewer interaction with the browser. The preferences of the web-page author are represented by a CP-network, a graphical, qualitative preference model developed by Boutilier et al.. The layout constraints are represented as geometric constraints. We discuss the theoretical basis of this approach and its implementation within the CPML system.