

# 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.