Soft systems methodology in environment-aware case-based reasoning system analysis.

ABSTRACT

The aim of this study is to examine the potential of Soft Systems Methodology (SSM) in the development of environment-aware Case-Based Reasoning (CBR) system. Having awareness of the computing system's environment is useful either for providing information or factor that can affect the system or effected by the events occur in the environment. The CBR system with environment awareness is able to employ real-time contextual information available in the environment. This information or knowledge will contribute to improve the problem descriptions as well as the solutions, in which the system not only depend on information given by user and historical cases. However, resources available in the environment need to be identified prior to the implementation of environment-aware CBR system. This requires an appropriate analysis methodology to build an explicit model of the system's environment to capture relevant environment knowledge for the system. This study presents the SSM analysis in the development of environment-aware CBR system. The discussion is illustrated with reference to the partial analysis of an environment-aware CBR system development. The deliverable of this initial analysis is an explicit model of the system's environment for environment-aware CBR system.