

# Classification Refinement with Category Hierarchy

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## Abstract

The concept of classification refinement using hierarchical grouping of categories is presented in this paper. Hierarchical grouping can be determined by heuristic, or existing hierarchical clustering algorithms can be applied to generate tree structures. The concept presented requires the classifier, the grouping of the categories and a threshold value as parameters. The concept is defined to be usable for multiple classification tasks. The presented concept can improve the accuracy of classifiers in the case of low confidence level.

*Keywords:* classification, hierarchical clustering, Miskolc IIS Hybrid Data Set