Comparison of Different Dichotomous Classification Algorithms

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Abstract

Experimental investigations of various dichotomous classification algorithms are carried out. Dichotomous classification, or Error-Correcting Output Codes (ECOCs) classification, is based on the construction of a binary code matrix. The rows of the matrix contain unique codewords of classes, and columns are called dichotomies. A dichotomous classification consists of two stages: coding (construction of a code matrix) and decoding, making a decision on the correspondence of an object to a class by analyzing the code matrix. In this study, an experimental comparison of newly proposed methods for constructing dichotomies and a comparison of different approaches to decoding by the available code matrix are proposed. Preliminary experiments show the prospects of proposed methods.