

Featureless Pattern Classification.

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Abstract: In this paper the possibilities are discussed for training statistical pattern recognizers based on a distance representation of the objects instead of a feature representation. Distances or similarities are used between the unknown objects to be classified with a selected subset of the training objects (the support objects). These distances are combined into linear or nonlinear classifiers. In this approach the feature definition problem is replaced by finding good similarity measures. The proposal corresponds with determining classification functions in Hilbert space using an infinite feature set. It is a direct consequence of Vapnik's support vector classifier [V.N. Vapnik: The Nature of Statistical Learning Theory. Springer-Verlag, Berlin 1995.].

Keywords:

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