K-means with Three different Distance Metrics

Abstract

The power of k-means algorithm is due to its computational efficiency and the nature of ease at which it can be used. Distance metrics are used to find similar data objects that lead to develop robust algorithms for the data mining functionalities such as classification and clustering. In this paper, the results obtained by implementing the k-means algorithm using three different metrics Euclidean, Manhattan and Minkowski distance metrics along with the comparative study of results of basic k-means algorithm which is implemented through Euclidian distance metric for two-dimensional data, are discussed. Results are displayed with the help of histograms.

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Index Terms

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   Centroids   clustering   distortion   metrics   similarity matrix