Application of Particle Swarm Optimization in Data Clustering: A Survey

Volume 65 - Number 25
Year of Publication: 2013

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10.5120/11276-6010

Abstract

Clustering is the process of organizing similar objects into groups, with its main objective of organizing a collection of data items into some meaningful groups. The problem of Clustering has been approached from different disciplines during the last few years. Many algorithms have been developed in recent years for solving problems of numerical and combinatorial optimization problems. Most promising among them are swarm intelligence algorithms. Clustering with swarm-based algorithms (PSO) is emerging as an alternative to more conventional clustering techniques. PSO is a population-based stochastic search algorithm that mimics the capability of swarm (cognitive and social behavior). Data clustering with PSO algorithms have recently been shown to produce good results in a wide variety of real-world data. In this paper, a brief survey on PSO application in data clustering is described.

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Index Terms
Computer Science
Artificial Intelligence
Keywords
Data mining  Data clustering  Particle swarm optimization