Different Clustering Algorithms in Data Mining

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Abstract: *Clustering is the grouping together of similar data items into clusters. Clustering analysis is one of the main analytical methods in data mining; the method of clustering algorithm will influence the clustering results directly. This paper discusses the various types of algorithms like Hierarchical Clustering Algorithms Partitioning Method Nearest Neighbor algorithm K-Mean (A centroid based Technique) Density-Based clustering etc. This paper also deals with the problems of clustering algorithm such as time complexity and accuracy to provide the better results based on various environments.*

Keywords: Clustering; Datasets; Machine-Learning; Data Mining

REFERENCES

[1]. L. Parsons, E. Haque, and H. Liu, "Subspace clustering forhigh dimensional data: a review," ACM SIGKDD Explorations Newsletter, vol. 6, pp. 90-105, 2004.

[2]. C. C. Aggarwal, J. Han, J. Wang, and P. S. Yu, "A framework for projected clustering of high dimensional data streams," in Proceedings of the Thirtieth international conference on Very large data bases-Volume 30, 2004, p.863.

[3]. R. Agrawal, J. E. Gehrke, D. Gunopulos, and P. Raghavan, "Automatic subspace clustering of high dimensional data fordata mining applications," Google Patents, 1999.

[4]. C. Domeniconi, D. Papadopoulos, D. Gunopulos, and S. Ma, "Subspace clustering of high dimensional data," 2004.

[5]. X. Z. Fern and C. E. Brodley, "Random projection for high dimensional data clustering: A cluster ensemble approach,"2003, p. 186.

[6]. H. P. Kriegel, P. Kröger, and A. Zimek, "Clustering high-dimensional data: A survey on subspace clustering, pattern-based clustering, and correlation clustering," 2009.

[7]. R. XU and I. Donald C. Wunsch, clustering: A Johnwiley& Sons, INC., Pub, 2008.

[8]. Guha, Meyerson, A. Mishra, N. Motwani, and O. C. ."Clustering data streams: Theory and practice. "IEEE Transactions on Knowledge and Data Engineering, vol. 15,pp. 515-528, 2003.

[9]. A. Jain , M. Murty , and p. Flynn " Data clustering: A review.," ACM Computing Surveys, vol. 31, pp. 264-323, 1999.

[10]. P. C. Biswal, Discrete Mathematics and Graph Theory. New Delhi: Prentice Hall of India, 2005. [11] M. Khalilian, Discrete Mathematics Structure. Karaj: Sarafraz, 2004.

[11]. K. J. Cios, W. Pedrycz, and R. M. Swiniarsk, "Data mining methods for knowledge discovery," IEEE Transactions on Neural Networks, vol. 9, pp. 1533-1534, 1998.

[12]. V. V. Raghavan and K. Birchard, "A clustering strategy based on a formalism of the reproductive process in natural systems," 1979, pp. 10-22.

[13]. D. Isa, V. P. Kallimani, and L. H. Lee, "Using the self organizing map for clustering of text documents," Expert Systems With Applications, vol. 36, pp. 9584-9591, 2009

[14]. Shi Na, Liu Xumin, "Research on k-means Clustering Algorithm", IEEE Third International Conference on Intelligent Information Technology and Security Informatics,2010

[15]. S. Mythili ,E. Madhiya," An Analysis on Clustering Algorithms in Data Mining", International Journal of Computer Science and Mobile Computing,2014.