ABSTRACT

Community detection is the process of finding and identifying a community within a network, one of them on social networks. There are two characteristics of data in detecting the community that is the relationship between individuals and similarity between individuals. The community detection algorithm usually focuses on only one of its characteristics. In this research the author discusses the identify of the community using the algorithm Agglomerative Hierarchical Clustering (AHC) based on enhanced similarity on the Facebook data, which is an algorithm that sequentially modeling the grouping using the threshold value as a grouping tool, two nodes that have similarity value greater than threshold value then it will be made into a community by taking into account the relationship of the node. In the evaluation, the authors use modularity as a cluster quality measure, in which the quality of the cluster is said to be good if relationship inside the community is more solid than the relationship outside the community. The results of Algortima AHC are able to show that AHC can detect community with cluster quality (modularity) reach 0.4453 in real network.

Keyword : *Aggolomertive Hierarchical Clustering, Community Detection, Social Networks, Similarity, Modularity.*