## ABSTRACT

Currently the development of the information technology world and is growing rapidly. No wonder this is the case also in the number of digital news, especially news documents that exist in the online media. This causes more difficult it is to conduct a search of a news topics. Clustering is one method of data mining that is unsupervised learning to classify documents based on similarity. To do that grouping, use one of the clustering algorithm is K-Medoids.

K-Medoids is a clustering algorithm that seeks grouping a dataset by finding beforehand a number of points which represents a cluster (medoid). After obtaining the documents in the dataset k medoid grouped into clusters that have the distance to the nearest medoid. As for the method used to calculate the distance between the document is euclidean distance method.

Rank value built using TF \* IDF method in this research can be executed so that can be known summary result from news has rank value which counted manually amounted to 7.68 and according to rank value in system amounted to 7.672521605716973. This means that the calculations performed by the system is the same as the calculations done manually by the author. And the tested news is included in cluter travel with 100% accuracy.

**Keyword** : Partitioning Around Medoid, Medoid, Unsupervised Learning, Euclidean Distance Method, Cohesion, Separation.