

Abstract

Social Network is one of media that has evolved very significantly from year to year. Social Network or social network is a social structure made up of vertices (which are generally individuals or organizations) that is woven with one or more specific types of relationships such as values, visions, ideas, friends, descent, and others [1] ,

Social Network Analysis is a process to map and measure the relationship that exists between nodes in a relation. Mapping and measuring the relation that exists within the social network can be described in graph. Social Network Analysis is used to analyze the interaction between user in one relation that happen in social networks in order to obtain information from these interactions. One example of this Social Network Analysis is Centrality Measurement.

Centrality Measurement is used to determine the sequence of the most influential users in a spread of information in social networks. Measurement performed on the centrality calculation process for any user to find the relation between the centrality of the relation. Every one user described in the form of nodes while the relationships between users or nodes can be drawn into edge. Katz centrality is one kind of centrality which performs calculations to measure the value of the centrality of all nodes can be interconnected via nodes closest to the consequences attenuation value (Attenuation Factor α). In this study, the authors tried to measure the popularity of a node by using the method of Katz centrality and add Probability Affinity Index. So that with the addition of PAI method will result so that with the addition of the weighting PAI method, it will result potential user that influence the spread of an information based on the centrality more accurately in accordance with the state of existing networks and relationships.

Keywords: Social Network, Social Network Analysis, Node, Edge, centrality Measurement, Katz centrality, Attenuation Factor, Probability Affinity Index.