Abstract

Social Network Analysis (SNA) is utilized to analyze the interaction pattern that takes place in a particular group of social networking. The implementation of this model is exemplified in the model of centrality measurement which is deployed to determine user's ranking which influences in the dissemination of information. In order to discover the influential node, k-Path centrality is deemed as one of the effective methods to be applied in centrality measurement in which the influential node is estimated as the node that is being passed by information path frequently. In addition, the combination of probability of path is done randomly.

Regarding this, k-Path centrality has been employed in the analysis of this final project specifically by adapting random-algorithm approach in order to: (1) determine the influential user's ranking in a social media Twitter; and (2) ascertain the influence of parameter α in the numeration of k-Path centrality. According to the analysis, the findings showed that the method of k-Path centrality with random-algorithm approach can be used to determine user's ranking which influences in the dissemination of information in Twitter. Furthermore, the findings also showed that parameter α influenced the duration and the ranking results: the less the α value, the longer the duration, yet the ranking results were more stable.

Keywords : Social Network Analysis, k-Path Centrality, Random Algorithm