Abstract

Nowdays, information doesn't depend on distance or *time*. *Social* media is one of the med ia that used to exchanged information, that now is happening and used all over the world Twitter, facebook, google+ are some of *social* media that usually people use. In *social* media, we can describe *social network* as well. With technological development and the used of *social* media, now there's a developing know*ledge* that related to the phenomenom called *Social Network* Analysis or SNA. Twitter is one of the media that evolving with the *user* almost reached hundreds even maybe thousands of *user*s. In twitter, there are communities that group based on their similiarity. It's not impossible that one *user* can join 2 or more communities. That's called *Overlapping*. Because of that reason, there are algorithm that used to calculate *Overlapping user* in community, such as CPM, FCM, NMF, etc. One of the most famous algotirhm to solve that problem is Cluster Overlap Girvan Newman Algorthm (CONGA). Conga is development of Girvan Newman Algorithm. This algorithm explain how and when to *split* the *vertices* and when to cut the *edge*.

In this final assignment, I implemented the use of CONGA Algorithm to detect *Overlapping user* in community in *social* media Twitter. After that, i will analyzed the output to see the performance of this algorithm. The result are, the degree of a vertex has an big impact when searching an overlap user because the more a vertex has edge that could means a vertex could join many community.

Keywords: ***Twitter, Social network Analysis, Overlapping, CONGA, clustering, community***