Documentation

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## The Network

The network is comprised of users as nodes and retweets as the edges between any two users.

## Dominance

Dominance is a metric used to measure the attention payed to a user or the influence generated by a user.

Dominance is calculated by using the degree of each user and their naighbours. Refer to the dominance function in dominance.R

## Creating the Network

The network is created by the create\_network function present in the parse\_edge\_datatype.R file.

It requires the tweets to be processed as the input.

It creates the edges and nodes dataframes and runs the dominance function from the dominance.R file. The dominance is appended as a vertex\_attribute in the nodes dataframe.

Both the dataframes are written in CSV format in the Data folder.

Return None.

## Dominance analysis

The dominance\_analysis function in dominance\_analysis.R does multiple tasks pertaining to the analysis of the dominance distribution.

The first task is to sort the nodes by dominance.

The second task is to filter the dominance by threshold and store the values.

Dominance distribution is represented by way of a histogram.

The next task is to create a dataframe which will include nodes possibly belonging to a near clique by way of filtering using a degree derived metric.

The last functionality provides a visualisation of the network with dominance attributing to the size of the nodes.

Returns dominance\_histogram

# Timestamp network analysis

The create\_timestamp\_network function in the time\_stamp\_network file creates the network in the same manner as the create\_network function. The function sorts the tweets by Created time before creation.

The dominance calculation is run at every interval (24 hours) and stored as CSV.

# Cluster analysis

The cluster\_wise\_user\_analysis function in the cluster\_wise\_user\_analysis file does the task of linking clusters to individual users. It then links the attributes of the users to the same table.