Analysis of Terrorist Groups on Facebook

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Abstract- Nowadays often usage of the Social Networking Sites (SNS) especially Facebook by terrorist groups to spread their ideas among people has grown. In this work we try to monitor those groups by Facebook Operation techniques and then apply an algorithm to detect most active node in the group that can recruit most nodes on Facebook. The algorithm works on centralities to find out the node that is most central in the group.

Keywords- Social network analysis, counter terrorism, Facebook Operation.

I. INTRODUCTION
Social media Referees to the information of people in which they share create exchange and comment contents among themselves in virtual communications and networks. A social network is a social structure made up of a set of actors (such as individuals or organizations) and the relation between the actors. Most of the communications between individuals are made through Facebook [1]. SNS are mainly attractive to the younger generations, and it is not uncommon for parents or grandparents to be active users. People, organizations and groups uses SNS for a variety of purposes [2]. In this work we try to monitor some terrorist groups on Facebook by human using Facebook Operation techniques and then analyse them by using algorithms to find the target. The case that is presented in this paper to collect the data on Facebook is named Facebook Operation. It is very recent, Special and unique. After getting the data of the target group the presented algorithm by us in this work will analyse the nodes and the relations among them, by using Social Network Analysis (SNA) witch it is a set of powerful techniques that can be used to identify clusters, patterns and hidden structures within social networks. The algorithm will detect the most active person in the network that try to increase the member rate of the group and the propaganda through this node will reach other nodes quickly.

II. FACEBOOK OPERATION
In the platform for cyber-counterterrorism in the Facebook kingdom, the purpose of contemporary methods served the following purpose: 1- Gaining information about the user and his friends (connections) so as to construct a link chart. 2- Monitoring the target user’s status, activities, together with the video and pictures published by the user. 3- Identifying areas of interest and potential target locations. 4-The target that are identified are simultaneously been worked on through Facebook. 5- Strategic and up-to-date information is collected on the target individuals and groups as the agent plays the role of a friend of the target.

III. Algorithm to detect the most active person of a terrorist group on Facebook

\[ n \text{ is node} \]
\[ e \text{ is edge between two node} \]
\[ \phi n \text{ is set of node} \]
\[ Mx \text{ is set of } e \]

\[ e : n \rightarrow \phi n \]
for \( i \) in \( Mx \) do
if \( e = 1 \) and \( \phi n \neq n \) then
\[ C_d = \sum \phi n \]
\[ C_c = \sum \phi e_n \phi n \]
end if
end for
\[ \text{High Degree Centrality} = \text{big } C_d \]
\[ \text{High Closeness Centrality} = \text{big } C_c \]
Graph(\( \phi n, e \))

IV. Conclusion
One can say that what can be obtained through Facebook Operation, cannot be obtained by any other means, considering that this method needs less time and financial resources. We applied our Algorithm on the gained data from Facebook Operation. The algorithm detected active nodes that can recruits other nodes in the group easily because of them position among other nodes in the network. Detecting the active nodes is done by using combination of different well-known centrality measures on the nodes in the group. We identified the most active node in the network.

REFERENCES