



1. INTRODUCTION

Technology advancements have made information dissemination easier and faster, especially on social media. Users of each social media have different behaviors, which can be determined in how they respond to information on social media. This behavior includes activities that users can perform online, such as making friends, uploading content, viewing profiles, sending messages, and commenting. Comments submitted by users on scattered information can vary. Some comments are positive (praise/support) or negative (blasphemy), depending on what is discussed in the information.

The platform used to research user behavior identification is Twitter. Twitter is one of the most widely used social media for sharing information. Twitter is called a microblog because it allows users to post and read information such as blogs in as many as 140 characters [1], [2]. Many researchers have discussed user behavior identification in various studies. Research [3], [4], [5], [6], [7], [8] use the Twitter platform because it is known as a means to spread knowledge, information, and news. Besides Twitter, some use YouTube, Facebook, Whisper and Renren [9], [10], [11]. A simple step for user behavior identification is to know in advance the problem to be taken and then what steps will be taken. The dataset to be used can be obtained using data crawling or data that already exists on various official websites such as Kaggle [12], [13]. There are two methods of user behavior identification; clustering and classification. Several algorithms such as Agglomerative Hierarchical, K-Means, DBSCAN, Mean Shift, and other clustering method can be selected. The clustering method aims to identify clusters to carry out the user behavior identification. In addition, the Naïve Bayes algorithm, Maximum Entropy, and Support Vector Machine (SVM) can be used in classification method [14]. Identifying user behavior can also use centrality and similarity calculations [3], [15].

If other studies use many techniques of method. Examples are found in research [16] by U. Dutta identified only based on the dataset used, it means the research did not use any method or algorithm. However, this takes a long time because the grouping process is done manually, so this method is not efficient. The results show that users overall exhibit statistically significant behavioral changes. The vital thing of user behavior identification is the existence of Social Network Analysis (SNA) [17]. This Network Analysis aims to strengthen the identification process, such as knowing what kind of relationship exists on the user so that the information they have can be widely spread easily, then knowing the user account from the existing data, and visualizing the network to determine the connection based on the topic visually. To know the user's behavior, we can see the user's mood. Usually, if it is good, he will post a good message. Meanwhile, a user who has a bad mood will make impolite sentences or look like he is angry and sad [7]. Compared to previous research, this study has several differences. The first is the chosen topic, namely politics. Of course, this makes the dataset used different. In addition, the use of methods and algorithms is also different. The problem in this research is politics and was taken when it was trending on Twitter. The issue raised was the work of President of Indonesia, Joko Widodo, which the public felt was not good when he was about to move and build a new capital city, so people wanted him to resign as a president immediately.

The solution to this problem is identifying user behavior that begins with preprocessing so there is no missing value. Next is identifying user behavior by applying the clustering method using the Agglomerative Hierarchical Clustering algorithm. This algorithm can determine the cluster's number that looks the best [18]. Algorithm selection is also based on its use which is still rarely found in several related studies. After grouping, it enters the network analysis stage, which uses proximity centrality calculations to assess the relationship between certain variables and other variables in a network. The network visualization stage is done after network analysis. This stage aims to display the visualization of the centrality calculation result at the network analysis stage. After visualizing the network, proceed to the user behavior analysis stage. At this stage, the tweets are analyzed to determine user behavior. The behavior referred to in this research is positive behavior (praise/support) and negative behavior (blasphemy).