The Impact of Islamic Messages on Twitter Towards Moslem Youth

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Abstract. The presence of social media has increased the opportunities for the Moslem in sharing and gaining knowledge about the religion of Islam. In general, Twitter can be an alternative for people to deliver and obtain Islamic messages. As the biggest moslem community, Indonesian people has made use of Twitter as a tool for them to gain knowledge about religion. As a matter of fact, there are many Islamic preachers that have been utilize Twitter as a media of proselytizing various topic related to religion practice. The most popular preacher usually has many follower. The result shows that there is a strong correlation between the two. There is a correlation between the number of tweets with the number of follower. The more preacher post a tweets the more follower they attained. Moreover, several topics are identified as the most frequently occurred. The tweets which contain about worship, love, information, and purification of soul have become the most favourable subject among preachers and scholars.

1. Introduction
Among the number of social networking sites used by people in Indonesia, Twitter is the one of the media that have been utilized for spreading and gaining information about Islam. Compared with other social networking sites, Twitter has special characteristics in its message. Twitter allows user to share information through 140 character of short message called tweet. However, it is very often that users write many messages in the same topic with length more than 140. Therefore, they will divide the messages into a series by using hashtag (#) followed by the topic or by numbering the tweets. Figure 1 below shows the example of Twitter message series from the account @RumayshoCom with numbers and the hashtag #rezeki which means provision from God.

In Indonesia, there is a term called kultwit which stands for “Kuliah Twitter”. It is defined as a set of tweets that belong to certain topic or theme. Additionally, the purpose of kultwit is to deliver a set of message from particular topic [1]. The topic itself ranging from various area such as politics, religion, art, and so on. However, this study will focus on the messages with religion (Islam) topic. In general, Islamic messages on Twitter usually delivered by a person who has proper knowledge about Islam which is called da’i (the person who do preaching).
Based on the previous research [1], it is revealed that spreading Islamic messages via Twitter by using kultwit has become trends among some Islamic scholars in Indonesia. In addition, this also help them to convey their messages with more attractive to all people and specifically to the Islamic community. However, there are spaces for research to enquire this phenomena deeper.

Thus, this study will discussed about two things. Firstly, this research will find the correlation between the number of the scholar followers and the enthusiasm of the follower towards the frequency of tweets posted by the scholars. Secondly, we retrieve the Twitter messages from the most famous scholars which mentioned by our respondents in the questionnaire. Moreover, we also cluster the tweets to know the tweet content posted by the scholars.

The rest of this paper will described as follows. Second part of the paper will be discussion about related works that has been done by other researcher. Third part will be method used in this study. Fourth part will be the result of the study along with the discussion related to it. Finally, concluding remark will end this paper.

2. Related Works
Some previous research have been discussed about the utilization of social media for religion purposes.

Lovheim [2] has revealed the high number of internet usage among young people in Sweden. However, the use of internet to find information related to religion still low (40%). In addition, this study stated that the internet will become new place for the contemporary people to discuss anything about religion in the future which is called cyber religion.

Hosseini [3] has investigated about the role of information technology (website and internet) for preaching activity. The result of the study stated that information technology was able to provide support in conveying the knowledge about tajweed, hadith, tafseer and another contemporary topic. The existence of information technology somehow is able to enrich the user’s understanding about Islam. This is achieved by reading literature online. The advancement of information technology should have been used to spread Islamic messages [4].

Adam, et al. [5] has studied the use of blog as a media for Islamic preaching) in Malaysia. Blog has been adopted by the scholars to share islamic knowledge. Moreover, it has also been regarded as the one of effective alternative methods in disseminating any information related to Islam. In spite of that, the use of the blog to look for information about religion is still low among young people. They perceived blog as media only for entertainment and socializing with people around the world, not to find a particular knowledge.

Agboola [6] stated that the use of website in educative preaching is still low. This is due to the fact that only few people contribute in it. Furthermore, recently, internet users are more attracted by social media rather than website. Thus, to utilize social media in the activity of preaching can be considered as an alternative way.
Omar, et al. [7] conducted a study about the role of social media in da’wah activity in Malaysia. In this study, it was concluded that the use of social media is necessary in preaching activity. The popularity of social media could be an alternative way to spread Islamic messages to the people effectively. In that way, the scholars need to gain an ability to use social media as a channel of preaching.

All of the literature above have stated that information technology could be an alternative way to spread Islamic knowledge. However, based on our best knowledge, the study that explores the relationship between religion preaching and Twitter is rare. As a matter of fact, Twitter becomes a new phenomenon in preaching community especially in Indonesia. Moreover, there are various interesting topics that need to be revealed. That is what this study aiming.

3. Methods

3.1. Questionnaire Analysis
This research is positivist in nature. It focuses on the influence of religion-related tweets posted by Islamic preacher on Twitter activity of their followers. It used qualitative and quantitative analysis method. Research data are retrieved from questionnaire. The survey was conducted in July 2016. The participants were an active user ranging from 18 to 30 years old in age. We employ random sampling and also snowball sampling technique to choose participants.

After that, the data we retrieved from survey was analyzed. We use correlation bivariate analysis to inquire the influence of social media on follower’s activity.

3.2. Tweet Extraction
We collected 11060 tweet data from five scholars who have the most followers from the respondents. Tweet dataset was grabbed by using the TwitterSearch library in Python. The tweet extraction task aims to obtain the topic of the tweets posted by the scholars. In particular, we conducted the clustering task using K-Means method.

Preceding the clustering task, we need to clean the Twitter messages by performing preprocessing tasks. The preprocessing tasks are removing URLs, removing tweet symbols, removing punctuations, case folding, tokenization, and removing stopword. The first task is removing URLs from the tweet. Secondly, tweet symbols such as @username, #hashtags, RT(retweet), etc. will be omitted in this step. The next step is removing punctuations from the tweet. Case folding is the process to convert words into same form, for instance, lower case. After that, tokenization task will be conducted to divide the sentence into some parts called token. Finally, stopword removal is carried out by eliminating the common and frequent words which do not have the significant influence in the sentence. Figure 2 describes the detail steps in preprocessing task.

![Figure 2. Preprocessing Task](image)

4. Result and Discussion
In this study, the impact of social media is defined as the relationship between the frequency of kultwit given by scholars and the frequency of their follower read that kultwit. The number of tweet, to some extent, will attract other user to follow that tweet. Here, we defined two variable namely FD as independent variable and FM as dependent variable.

Variable 1 (FD): The frequency of tweet

Variable 2 (FM): The frequency of tweet follower
The correlation analysis done with the two variable shows a strong relationship with coefficient 0.820 (r=0.820) in significant level of 0.01.

**Table 1.** Correlation Analysis

|                  | frek_tweet | frek_follow |
|------------------|------------|-------------|
| frek_tweet       | Pearson Correlation | .820**     |
| Sig. (2-tailed)  | .000       |             |
| N                | 102        | 102         |
| frek_follow      | Pearson Correlation | .820**     |
| Sig. (2-tailed)  | .000       |             |
| N                | 102        | 102         |

**. Correlation is significant at the 0.01 level (2-tailed).

Based on the data described in Table 3, it can be concluded that the number of tweets posted is strongly correlated with the number of follower that follow the tweets. It is somehow can be considered as the enthusiasm of the followers to know more about islamic messages contained in the tweets.

Furthermore, in order to dig more about the topic of the tweets, this study has carried out the clustering task using K-Means method. In this case, the k value for K-Means clustering is 5. Additionally, we also assign the maximum iteration of K-Means with 1000 times iterations. To identify the topics of the tweets, we explored the top ten frequent terms for each cluster that can be seen in Figure 3.

**Figure 3.** Top Terms per Cluster

Based on the top terms per cluster above, it can be seen that each cluster has a specific subject. First, Cluster 0 discuss more about *manajemen hati* (heart management) and worship. The second cluster talks about sins, fidelity, and love among young people. The tweet contents in the third cluster are about supplication, prayer to Allah (God), and persuade the followers to do something. The fourth cluster contains more about the information to the followers about the lecture schedule, the invitation to people to come to the lectures, and the agenda of the scholars. The last cluster talks about purification of the soul (*tazkiyatun nafs*) and supplication.

5. **Concluding Remarks and Future Works**

Islamic preachers and scholars have been using Twitter as a mean to share about Islamic knowledge. Various topics were shared by means of special kind of tweet called *kultwit*. The way preachers share their information is broad in variety. There is a correlation between the number of tweets with the number of follower. The more preacher post a tweets the more follower they attained.

Moreover, it can be seen that there are some popular topics posted by the scholars. Based on the clustering result, several topics are identified as the most frequently occurred. The tweets which contain about worship, love, information, and purification of soul have become the most favourable subject among preachers and scholars.

Further study can be held on two topics. First, research can be done in analyzing the content of Twitter messages using natural language processing technique. Second, empirical study can be held to prove the validity of factors affecting user acceptance of religion-related tweets.
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