

Towards Identification of Propaganda in Arabic Tweets from Social Media

Ali Allaith

University of Engineering and Technology, Lahore, Pakistan
allaith.net@gmail.com

Abstract. The promotion of rumors and misinformation or incomplete information will have a significant impact on communities, especially if the process is organized by a government organization or the media. The illusion becomes a reality in the minds of the target groups, which are always the victim of propaganda. The propaganda is considered one of the most powerful political weapons in the modern era and always succeeds in attracting significant groups of people. Although it was used in the past for a religious purpose, it evolved and grew to be used in the world of politics. A wide range of materials and media are used for conveying propaganda messages depend on the technology were used. Nowadays social media used to create propaganda and spread fake or misinformation news by using bots or electronic armies to distract people from the basic issues. The objective of this study is to identify and analyze propaganda in tweets on “Khashoggi Murder” on Twitter by tracking the trend hashtags over time and observing the images posted along with tweets.

Tweets including the term “خاشقجي” were extracted for 9 months using the twitter standard API. The tweet, date, time, source, replies, re-tweets, likes, hashtags, image URL, and tweet URL were extracted. Disinformation annotation was performed manually on part of the dataset¹ (5,000 samples) and then propaganda annotation is performed on the hashtags of the dataset.

A total of 1.2M tweets were automatically extracted, of that 89.3% from general user accounts and 10.7% from verified user accounts. Hashtags were included in almost 40% of the tweets. Tweets specifically contain misinformation text that was significantly observed as propaganda in compare with the tweets which contain true information. The hashtags attached with misinformation tweets increase and follow the hashtags attached with the true information. For example, the hashtag “#اختطاف_جمال_خاشقجي”, which is annotated as true information, has started on the first day of the incident. At the same day and after an hour, the hashtag “#فضائح_جمال_خاشقجي”, which is annotated as misinformation, was started and increased along with the first hashtag. This type of hashtags is used as propaganda to influence public opinion by relying on the number of hashtags and statistics on social media.

¹ The sample dataset will be presented in the International Fake News Contest, Doha, Qatar from October 1st until October 3rd, 2019

Visual propaganda has been used to change the way people think and behave which carries a negative connotation. Content analysis was conducted on images attached with tweets in our dataset to identify propaganda in a total of 1,000 Twitter images². We observe that the most images attached with misinformation tweets contain encourage of the community, support of the country leaders, and hate images against specific countries or people while the attached images with true tweets contain either true information or an image of the murder victim.

We conclude that the use of disinformation detection techniques could increase our knowledge of how social media impacts people and could help to identify propaganda based on tracking the trends hashtags and images posted on social media.

Keywords: Propaganda Detection, Misinformation, Fake News Detection, Arabic Language, Social Media.

² <https://drive.google.com/open?id=1QfvCw3CIbHG8qkutAqWcW7P4CwIVNpQJ>