From Alt-Right to Alt-Rechts: Twitter Analysis of the 2017 German Federal Election

Fred Morstatter

1 Introduction

1. They analyze the presence of Alt Right groups in OSM like Twitter by means of self organized communities and the topics discussed in them, with emphasis on its role during national elections in Germany.
2. They attempt to answer the following three research questions:
   (a) **RQ1**: How users are organized into communities and how information flows between them
   (b) **RQ2**: How to model topics discussed in these communities and analyze them over time
   (c) **RQ3**: What roles do bots play in elections

Figure 1: User community clusters

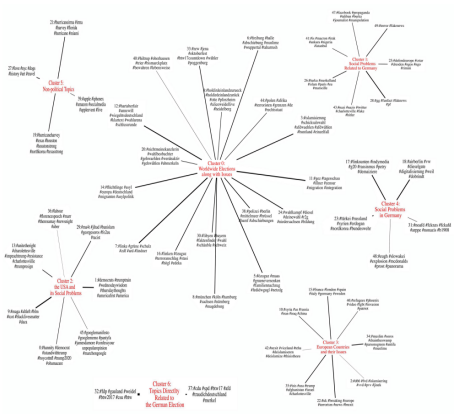

Figure 2: CorEx based topic modelling of Hashtags

2 Methodology & Results

1. They collect Twitter data corresponding to German elections over a period of 3 months for a set of given users. They also obtained all retweets of these people's tweets and collected 34 million tweets.
2. Communities extraction:
   (a) They extracted communities from the network by constructing a network based on retweets and mentions of all the users tracked. The network was decomposed into several communities (1) using Louvain algorithm.
   (b) They found 4 major clusters which they describe in detail in the paper. These clusters has their own dynamics and 3 of them were german based whereas the 4th one was majorly english speaking.
3. They measured the no of times users retweet members of their own community and the extent to which they retweet members of other communities. Mostly intra-community interactions was found.

4. Topic modelling:

   (a) They user Total Correlation Explanation (CorEx) to learn the topics discussed in various communities based on the hashtags mentioned. They found 7 main topic clusters which are shown in 2. The topic modelling was hierarchical and there were a total of 50 topics.

   (b) Another analysis was done to gauge the attention of a community on a given topic and they found that some communities have less attention spans whereas others have very high attention spans.

   (c) To understand variation of attention over time, they computed average cosine similarity scores for each community over each day and found out that for most communities, the attention increased as the elections date approached.

5. Impact of bots

   (a) In order to get a ground truth dataset, they collected the user status information after 3 months interval and checked if they were suspended. If the users were suspended, then the accounts were assumed to be bot accounts.

   (b) 11% of the users in their dataset were suspended for bot activity and they found that the activity of bots were nearly 9 times greater than those of normal user accounts.