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Seminar Report

Twitter's handling of right-wing users

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Statement of Proper Attribution, Originality of Work

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We hereby declare that we have prepared the present work independently without any non-trivial help of third parties and without use of other than the specified tools. The data, concepts and other contents acquired directly or indirectly from other sources are clearly indicated by the citation of the literature and appropriately highlighted in the text. The used materials from other sources do not constitute an unreasonable amount of our submitted work, i.e., well over 80% of the submitted work is written by ourselves. We are not reusing non-trivial portions of previous own work (e.g., previous seminar theses).

Abstract

In the following thesis, we are giving an overview of our analysis on the German so-called „far-right" Twitter-sphere, i.e. the collection of politically right-wing oriented users on the Twitter social network, and their interactions and behaviour. We collected data on several accounts basing our choice on a recently compiled list of known right-leaning users and profiles, publicized by Jan Böhmermann, a German satirist and television presenter.
We analyzed those tweets using a sentiment analysis script and tried to infer if the authors where reproducing right-wing propaganda, harassing media outlets or politicians, or exhibiting other unwanted behaviour generally associated with online „trolls" or other forms of online harassment.

Following our data-collection and sentiment analysis, our next goal was to build so-called honeybots, automated scripts posing as regular users on twitter, which are meant to bait or provoke right-wing users/trolls into interacting with them, or to provoke Twitter support into banning them.
WIP; missing in Abstract: expected result/findings

1. Introduction

In recent years, the political landscape in Germany has become more polarized, following the founding of the right-wing political party Alternative für Deutschland (alternative for Germany, in the following shortened to AfD) in 2013 and its movement to the far-right populist status it has as of the time of this writing. Especially after the AfD's showing of support for the far-right extremist group PEGIDA („Patriotische Europäer Gegen Die Islamisierung Des Abendlandes", patriotic europeans against the islamization of the occident) since 2015, the party has become more and more linked to and shown signs of racist, Islamophobic, anti-Semitic and xenophobic tendencies, positioning it as the currently most popular right wing party.

Following the shift to the political right in Germany and other Western-European states, more and more right-wing users have begun to pop up on Twitter, where they are both reproducing right-wing and alt-right propaganda and are also harassing left-leaning users such as politicians or media outlets, while exhibiting hateful and generally unwanted behaviours on the social network. As reporting those users to Twitter for their hateful messages rarely has any consequences, users on Twitter have begun to collect users exhibiting right-wing tendencies into lists, which one can use as blocklists, collections of users which can be collectively blocked and or muted, so that one would not see their tweets/interactions with other users anymore.

In the following we present the work of our thesis, in which we are trying to analyze the current atmosphere in terms of sentiment of German Twitter users, regarding tweets to certain topics or in response to other users. We are mainly basing our data-pool on a fairly extensive list of over 1400 right users, which was published by Jan Böhmermann, a German TV presenter and political satirist in May of 2018, and is also known as „Böhmermanns Schwarze Liste", Böhmermann's black list.

After describing how we collected our data, we will explain how we began to analyze the tweets we found and how our sentiment analysis is conducted.

2. The Data Collection Phase

While researching our topic we thought about different ways to find right-leaning users on Twitter. At first we did some hashtag analyses of recent important topics, such as „Flüchtlinge", „Migrationspakt" and „Gelbe Westen". As we have seen in our first analysis it is very difficult to get the context in which tweets have been written and also the sentiment of the tweet or its author from just the text of the tweet without knowing the authors stand on the topic in question. Therefore we have narrowed down the user base from which we are pulling tweets to include in our data-base from anyone tweeting about a certain topic, to mainly analyzing users who have been included on Böhmermann's black list and who have such been deemed „right trolls", or who are outright right-wing politicians. The original authors of the black list stay anonymous, but sources around Böhmermann himself and his production company say, that a data analyst compiled the list from preexisting blocklists and wrote an additional algorithm, which added users who follow more than ten users from the right spectrum and who are also followed back by them.

Using this list seemed a good baseline from which to conduct our data collection. We first wrote an algorithm using the Twitter-API in order to weed out inactive or deleted accounts. For this, we wrote our own script in Python using the tweepy library. The Twitter API limited how fast we could pull users and confirm their activity status to about 65 users per hour, so in the end it took almost 2 days of the script running wo sort out about 300 users, which left us with about 1100 users to analyze.

Further testing showed that it was going to be much more efficient to just look at their most recent tweets, than to look at all tweets to a certain topic. We are limiting ourselves to a collection of 200 tweets per user, which still leaves us with more than 200.000 tweets, which are collected into a local database in which we are storing both our raw and processed data during our analysis.

3. The Sentiment Analysis

After building our data base, we started to analyze the tweets on their sentiment, which means that we want to use an algorithm which categorizes tweets as inherently positive, negative or neutral. Using the German language extension of the textblob library in Python, we first looked at each tweet, cut the end of the word, so that only root words remained, which then could be matched to a list. The algorithm then assigned each word a numerical value corresponding to if it is positively, negatively or neutrally connotated. summing up the connotation-values of all words in a tweet, we can extrapolate the whole

tweets sentiment, i.e. conclusively say if a tweet is rather positively or negatively connotated.

Given that we are pulling those tweets from a list of users, we now calculated for each individual user, which percentage of their tweets are positively, negatively or neutrally connotated.
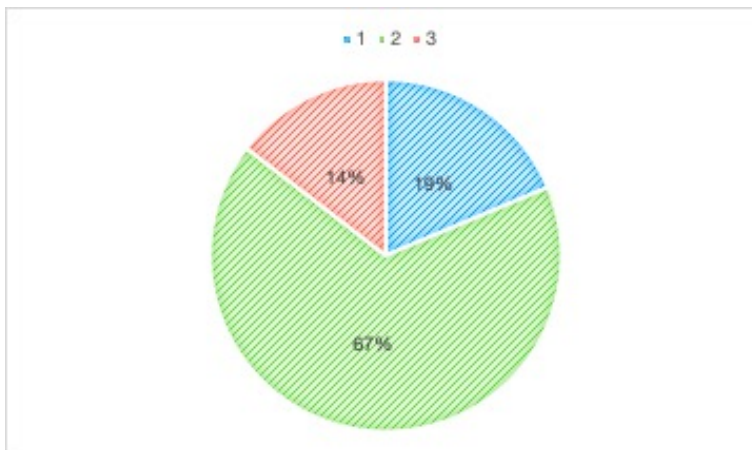
The following pie-chart shows the overall percentage of tweets and their connotations; about 14% of all collected tweets show negativ connotation (red), 19% show positiv connotation and the remaining 67% show neutral connotation.

The following line-chart shows the percentage of negatively connotated tweets in regards to all 1165 observed users, showing that while most users achieve only the average of 14,5% negatively connotated tweets, there are some significant exceptions, which we will look at specifically in detail.
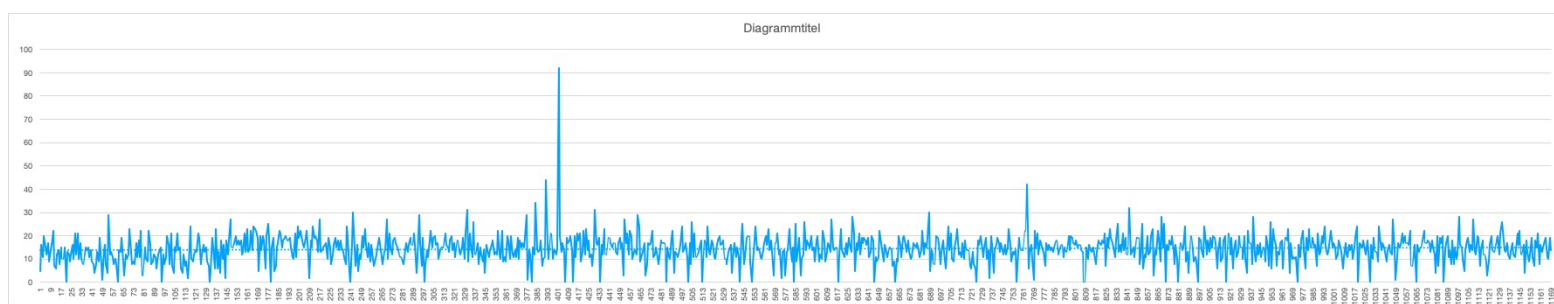
(Both charts are work in progress and will most likely undergo some sort of rework for better readability)

4.   What are our next steps

After our first round of analysis, wherein we analyzed the collected tweets and ran the sentiment analysis, we are now going to build a word-cloud, a graphical representation of the most used words and there connotation, which can show us graphically which words are most used by a certain group of users.

Using the word-cloud as a basis, we are then setting up designated twitter bots, which will use these words as bases for algorithmically generated tweets in order to either pro-voke right-wing twitter users into interacting with them, or the general user-base and provoke reports to twitter support. We are observing both their performance as so-called honey-bots (provoking/aggravating right-wing users into interaction) and how long they „survive" without getting reported on and subsequently banned by twitter.

(deleted tweets, deleted users)

Bot analysis?

5.   Problems

To our surprise, most tweets are actually flagged neutral, which shows that either the al-gorithm is not harsh enough as to how the over-all sentiment of a tweet is calculated, or that the strategy of calculating a tweets connotational sentiment is flawed from the be-ginning, as a lot of context and subtext is missing when only looking at a single tweet.

Context also plays a big role in the over-all sentiment analysis, as we could easily ob-serve, that while a lot of hateful content in tweets is being generated, many responses to negatively connotated tweets may be flagged as positively connotated, even though from context, the response is in agreement to the negative tweet, thus counting as a positive tweet.

Furthermore, the algorithm can not recognize rhetoric tools such as satire or cynicism.