

Introduction

Twitter is a popular social network, based on 140 character pieces of text called "tweets". Twitter has not only been used in a more personal capacity, but also in the direction of political agendas and activism.

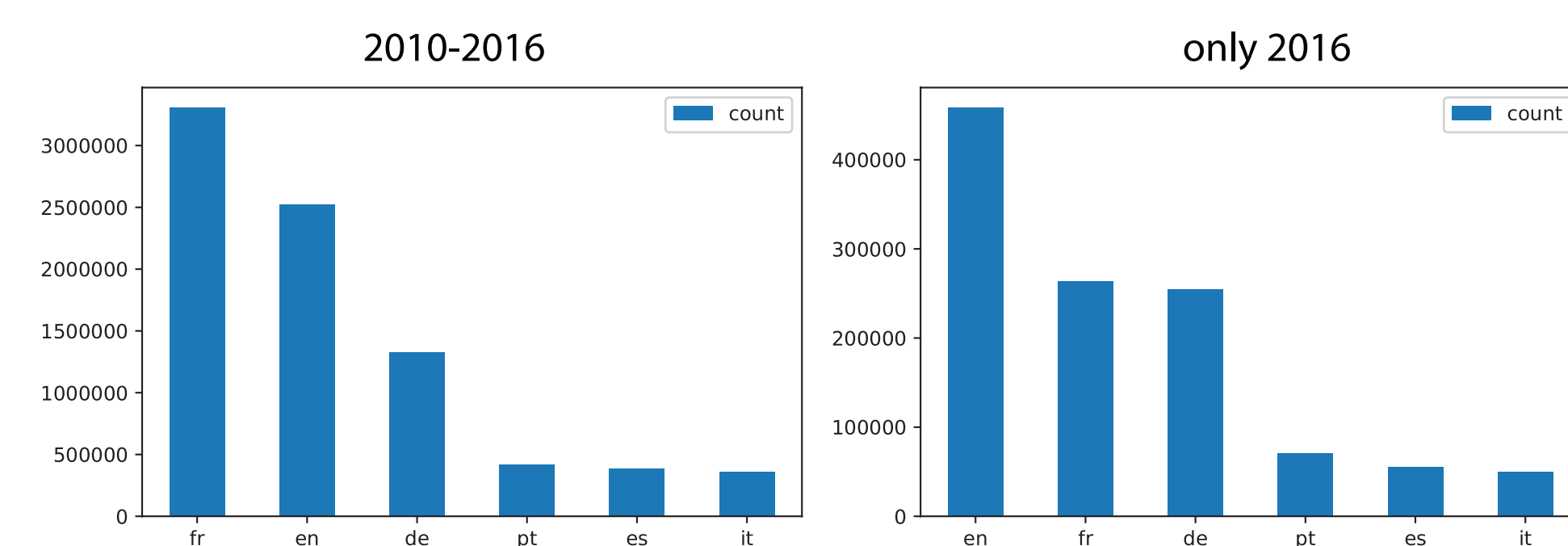
In this work, we have used a dataset of Swiss tweets with geolocation to gain insights into several questions. The first question is the relationship between population density and number of tweets. The second is concerned with the language of tweets and whether the famous Röstigraben can be reconstructed using them. Finally, as our main contribution, we propose a method to collect political tweets, and then proceed to inspect the number of political tweets over time, attempting to detect significant political events using spikes in the tweet/time plot. Our results show that the tweets collected as political indicate certain spikes in political activity corresponding to some of the referendums and federal elections, while other referendums remain undetected.

Research questions

- 1) Does the density of the location of tweets correspond to population densities? Or are the tweets significantly more concentrated in cities?
- 2) Can we reconstruct the Röstigraben only based on the language of tweets?
- 3) Are there any spikes in activity and do they correspond to particular events (e.g. referendums)
- 4) How involved are swiss people in politics on Twitter? Which areas are most involved?

Methods

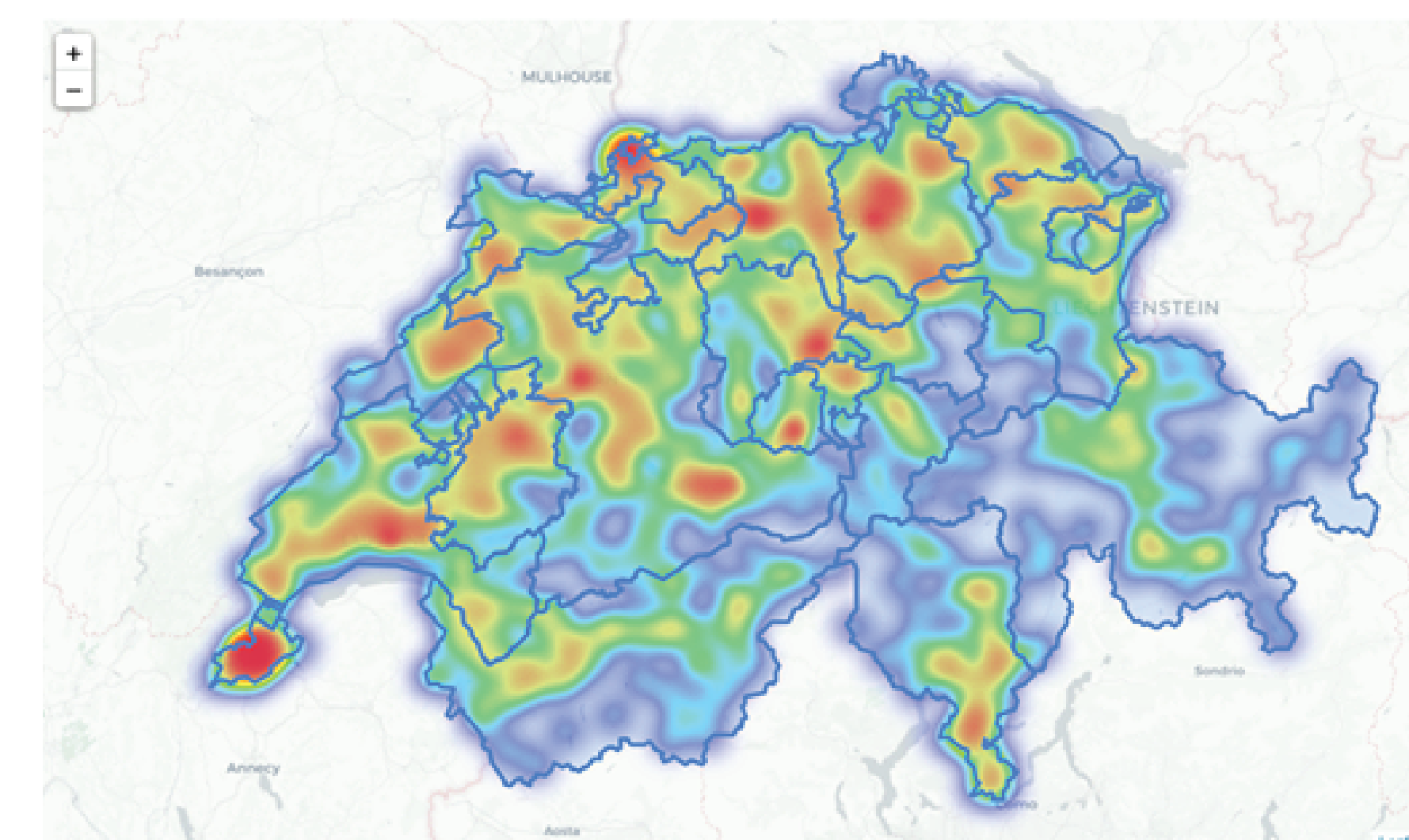
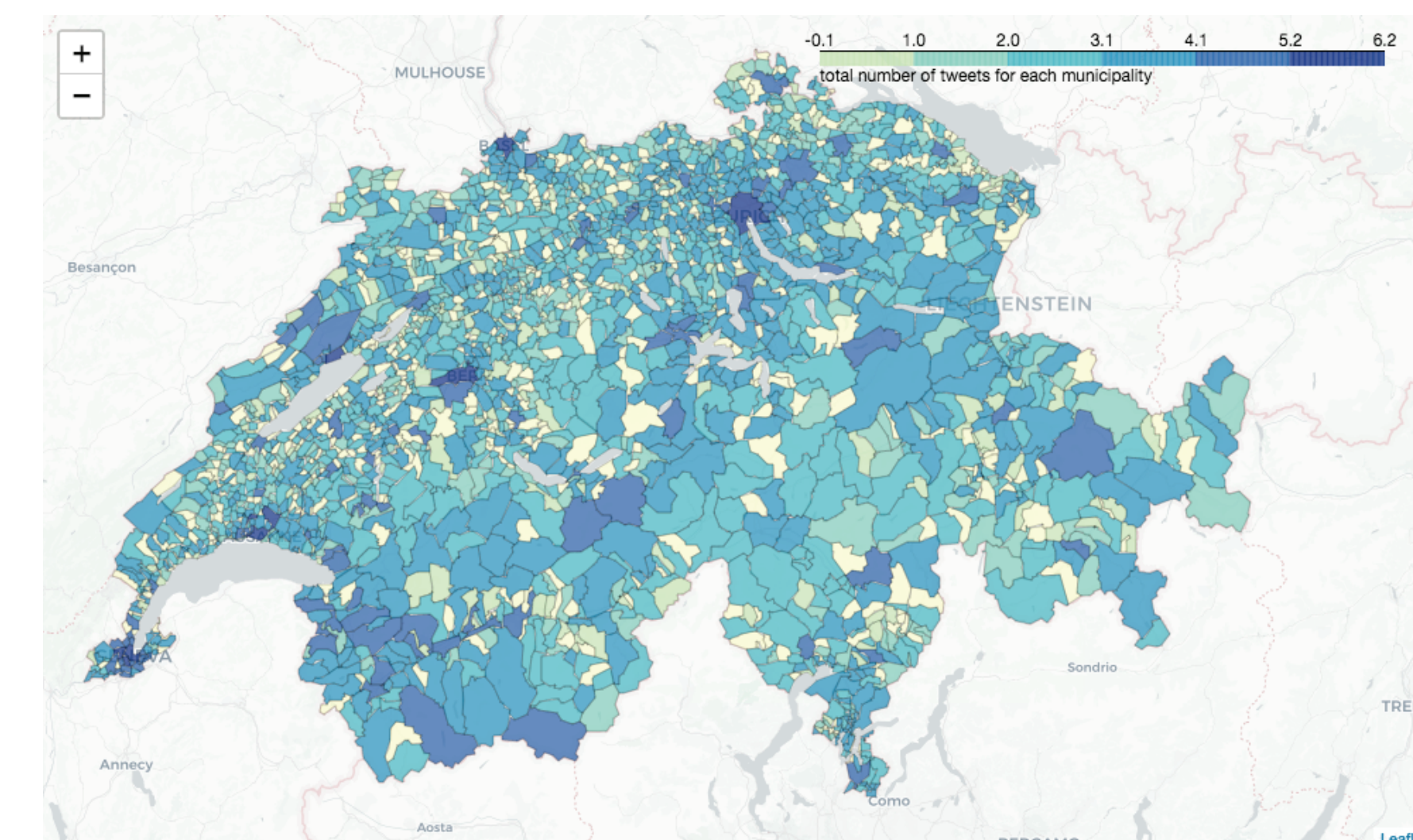
Language detection



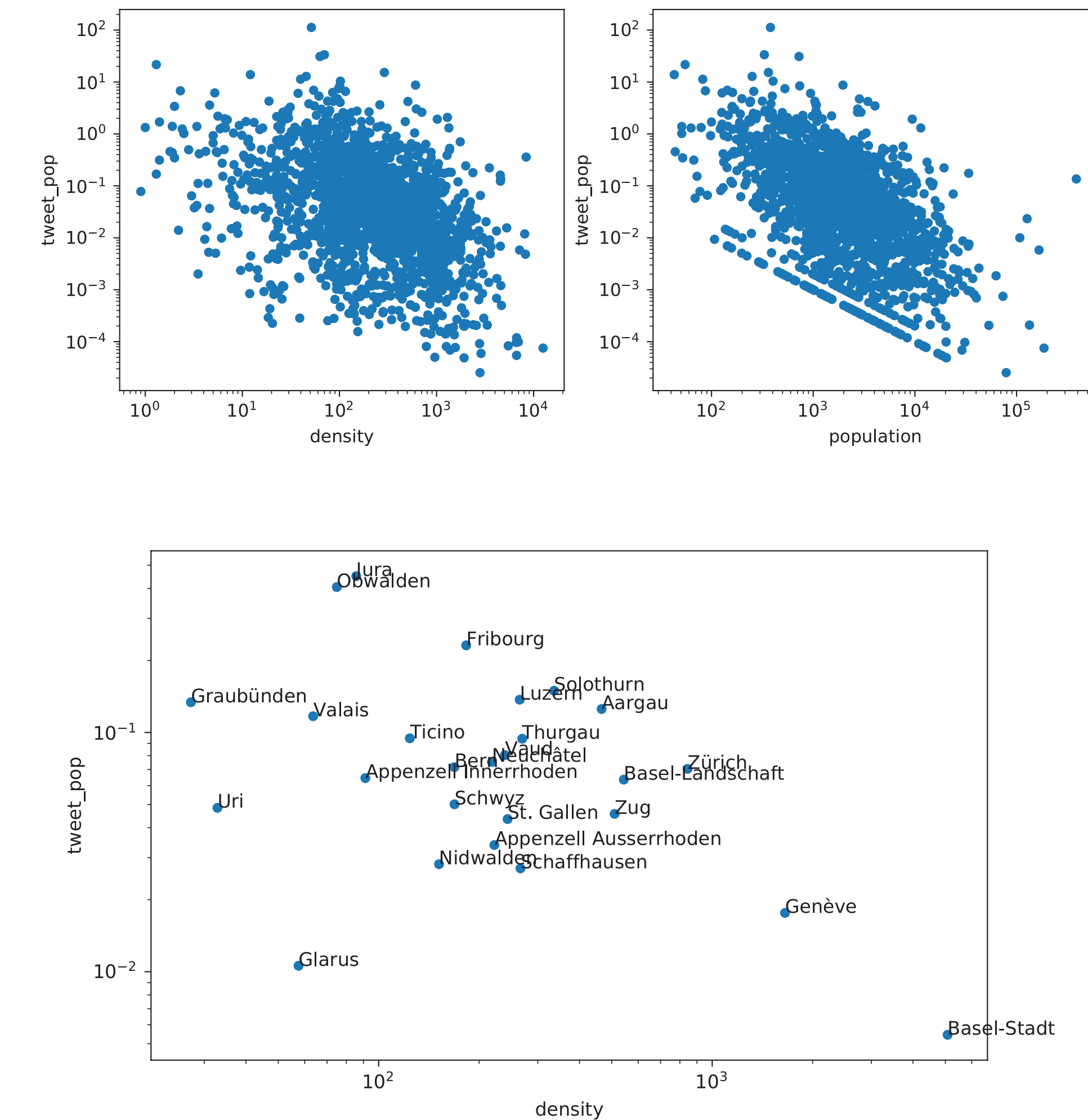
Flowchart for political content detection

Results

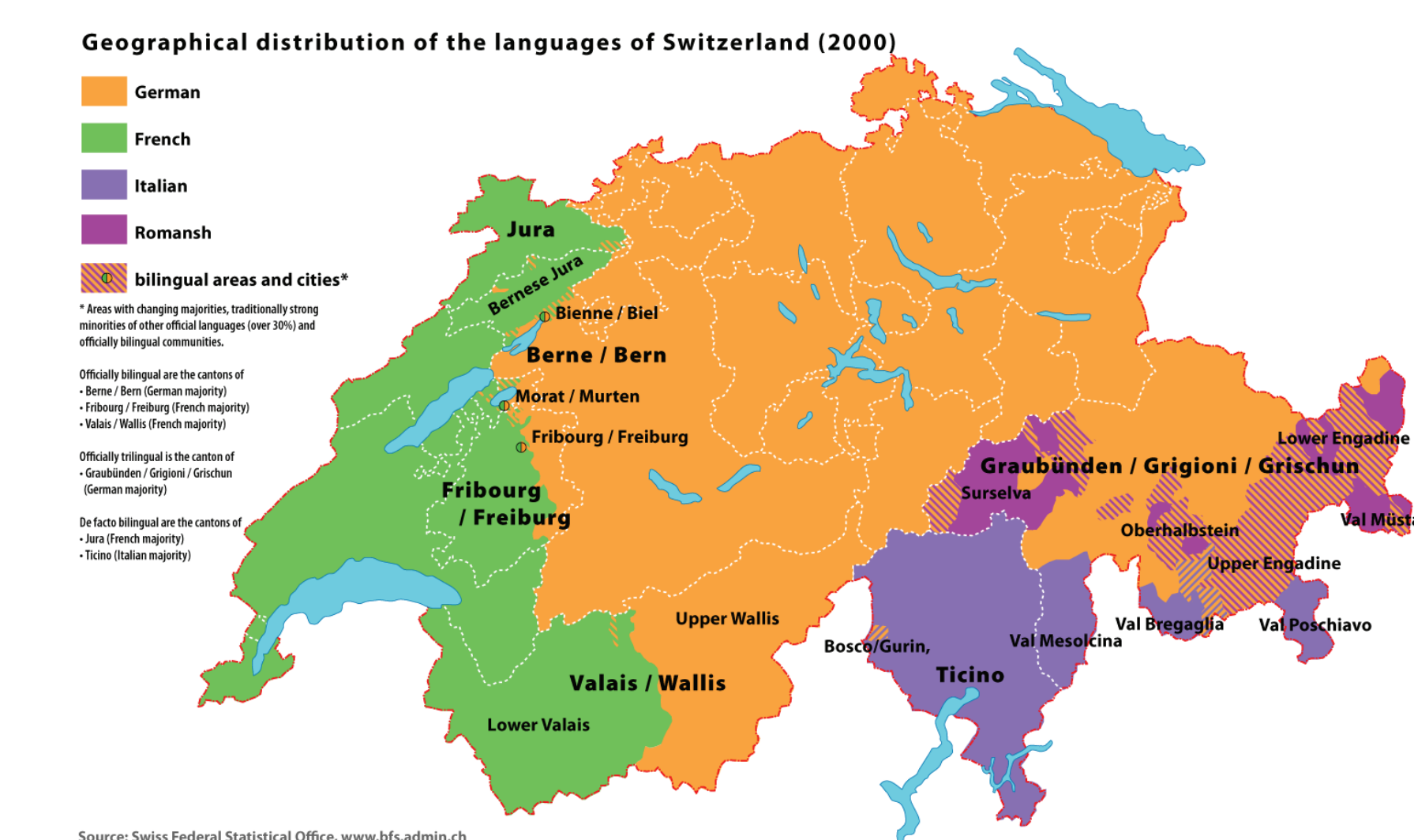
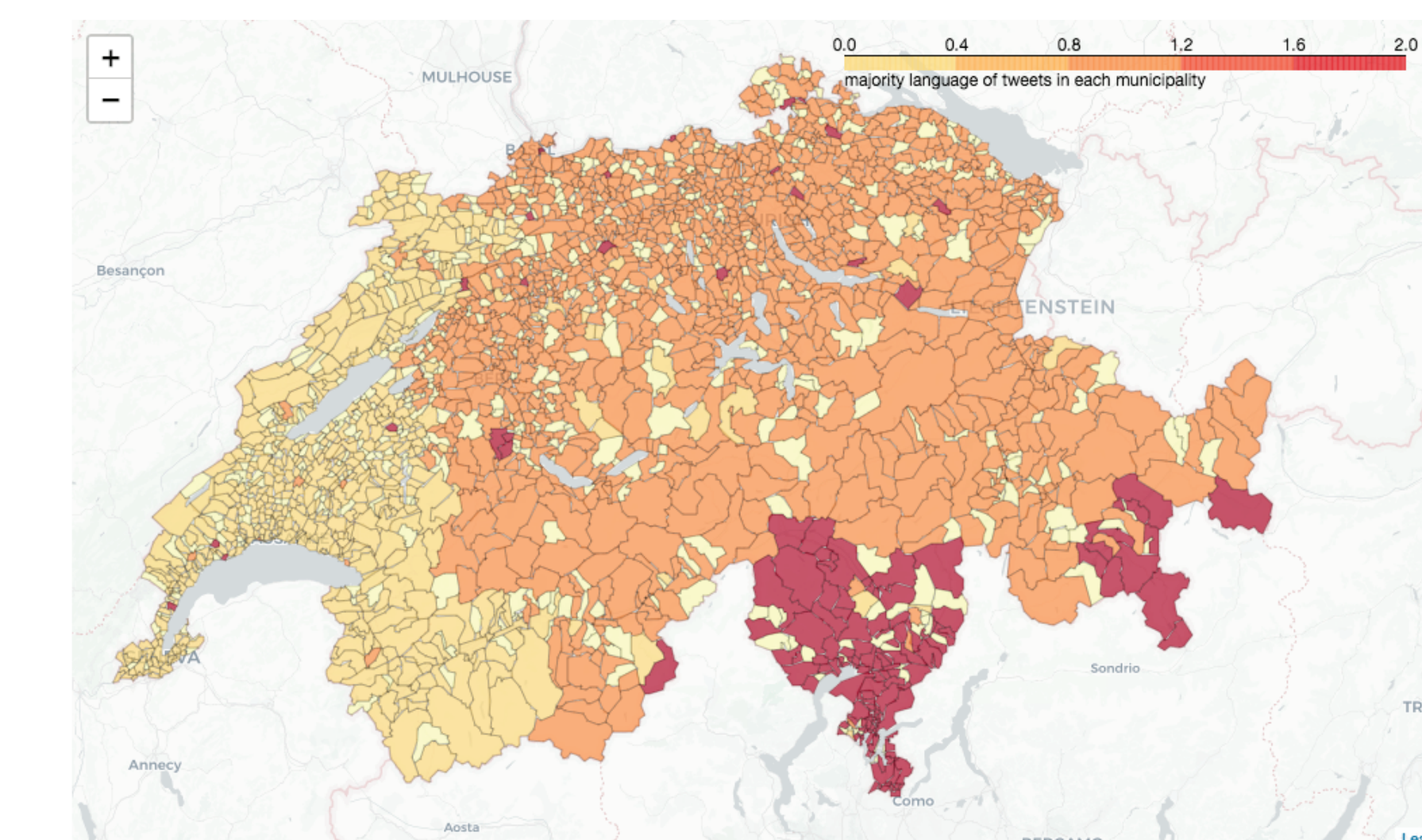
Visualization of twitter activity on map



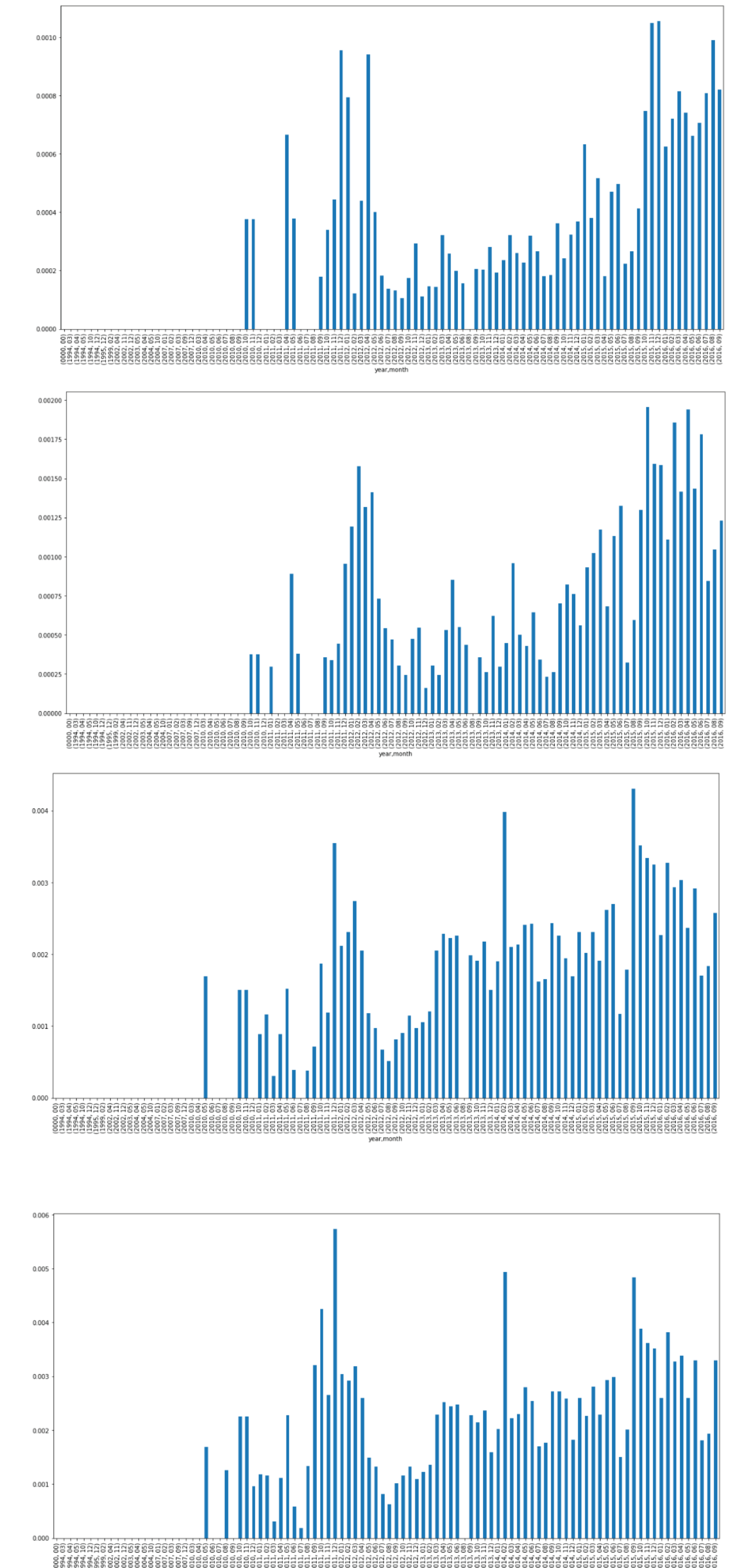
Twitter activity vs population density



Röstigraben



Political activity



Conclusions

- 1) Negative correlation between population density and twitter activity.
- 2) We can very accurately reconstruct the Röstigraben
- 3) We can detect political content with our bootstrapping algorithm.
- 4) Our dataset was biased, the findings (especially the first) should be confirmed on other datasets

References