Geolocating Regional Linguistic Variation of German on Twitter

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Twitter has been used for collecting language data and linguistic research in a variety of languages. (Goncalves & Sánchez 2014; Eisenstein, O'Connor, Smith & Xing 2014; Yuan, Guo, Kasakoff, Grive 2016). The proposed poster demonstrates the process of building a large Twitter corpus containing geolocated Tweets from the Deutscher Sprachraum (German language area) and investigates how German language varieties are used on Twitter.

German is the widest spread language within the European Union. German is a pluricentric language with three standard varieties: German Standard German, Swiss Standard German and Austrian Standard German. The official borders between Germany, Austria and Switzerland also form the official boundaries between the three standards. In addition to those national varieties, there are multiple varieties on the regional and dialectal spectrum. (Ammon 2015; Clyne 1992)

Easy access and its open API has made Twitter a popular source of data for research in various scientific fields and Twitter data shows great potential for linguistic research in multiple areas of expertise. Of particular interest for this poster are the tracking and exploring of regional linguistic variation of German on Twitter: Is there, for example, a connection between the language output and the geographic location tweets were sent from? To address such questions, a Twitter corpus of geotagged German Tweets within the Deutscher Sprachraum has been built. (Larl & Zangerle 2017)

This poster explores and describes the process of building the geotagged Twitter corpus of German tweets as well as giving a first glimpse into version.1 of the corpus.

The corpus version.1 currently contains tweets collected over a period of 30 (+1) months (January 2015 to June 2017).

The Tweets were collected using the public Twitter Streaming API. 85,810,255 geolocated Tweets could be retained within a geographic rectangle (5.85, 46.016667 and 17.1, 55.016667) that covers the Deutscher Sprachraum. These tweets were re-filtered by removing those geolocalised outside of Austria, Germany, Switzerland or Italy (South Tyrol). Twitter’s own language detector found 71 different languages within this data set. Subsequently, the corpus was filtered to only retain Tweets that were identified as German. The data was further refined by removing Tweets with missing latitude and/or longitude coordinates or other such deficiencies.

In total 18,645,263 German Tweets, sent from within Austria, Germany, Switzerland and the German speaking part of Italy South Tyrol, could be processed and added to the corpus. The data has been tokenised with the SoMaJo-Tokeniser (Proisl, Uhrig 2016) and tagged with the SoMeWeTa-Tagger (Proisl 2018). The Metadata consists of coordinates, town name, country, date, time, ID. Within the corpus you can find Tweets from 452,501 individual users.

The corpus includes texts, hyperlinks and emoticons, as those can be seen as linguistic features. (Beißwenger 2015)

This poster describes the process from data to corpus and explains the various challenges that were encountered

¹ [Viennese; eastern Austria] Awesome, Dude!
² The collection process is still ongoing but will end at the end of June 2018. This will result in introducing another 12 months of Tweets – Tweets sent from July 2017 to June 2018 – to the corpus. This corpus version.2 will then contain Tweets with a character limit of 140 and such with a character limit of 280.
along the way. Furthermore, a first version of the corpus on CQP-web (restricted access only!) will be available for preview on sight.

References