

## Abstract

The aim of this thesis is to test the main principle of the Gateway Belief Model (GBM) on Twitter data, as suggested and experimentally validated by other authors. van der Linden et al. (2015 and 2019). The GBM predicts that the perception of scientific consensus on anthropogenic climate change increases the probability of support for public action against or in favor of the mitigation of the climate change. In this work I analyse a random sample of 115,940,434 tweets gathered over the course of the first six months of 2020. The big data is pre-processed using unsupervised (Latent Dirichlet Allocation) and supervised (Naïve Bayes Classifier) machine learning algorithms in order to generate keywords for filtering environmentally themed tweets and to classify either absence or presence of the climate activism. Within the dataset, 5,857 environmentally themed tweets were detected, finding that only 94 out of them were explicitly linked to the message of scientific consensus about anthropogenic climate change. The harvested dataset proved to be unsuitable for testing the GBM, not only because of the small number of tweets which contain the message about 97 % of climatologists reaching the consensus, but also because the majority of these tweets deny the consensus and therefore, do not represent a perception of it. Considering these unanticipated circumstances, the research aim was modified and the principle of the GBM was tested on a more general level. Instead of the scientific consensus, any science-related content of environmentally themed tweets was studied. This allows me to suggest that during the studied period, the twitterverse does not behave according to the GBM. On the contrary, my results reveal that chance the environmentally themed tweets using the scientific argument are six times higher not to be an expression of the climate activism.