A longitudinal sentiment analysis of Swedish news headlines in 2000-2022

According to previous scholars, people find that news has an overly negative focus, which affects their mood adversely (Newman et al., 2022; Skovsgaard & Andersen, 2020; Toff & Nielsen, 2022). A sensationalist tone and a negative bias in news content might provide people with an inaccurate picture of reality and cause citizens to turn away from news.

Lately, scholars have shown that the negative emotional load in the US news media headlines is on the increase and that headlines from right-leaning news outlets are on average more negative (Rozado, Hughes & Halberstadt, 2022). To what extent there is a similar trend in Sweden is still unknown. However, there are some important differences between Sweden and the US when it comes to media related issues: Sweden is often described as a country with high levels of media trust, a strong public service media sector and a relatively high use of alternative, partisan websites (Andersson 2020; Westlund 2020).

In this potential joint project between the Stockholm School of Economics (SSE) and the KBLab at the National Library of Sweden, the transformer-based BERT language model for Swedish is used to analyze the sentiments of Swedish news media headlines in 2000-2022. The plan is to conduct a modified replication of the US study by Rozado, Hughes & Halberstadt (2022), with the overall objective to:

1. Construct a daily news sentiment index of Swedish news over the period 2000-2022.
2. Test the hypothesis that Swedish news headlines are getting more negative over time.

Potential procedure:

1. Start-up meeting between the project leader at SSE and the data scientist at KBLab, including a creation of a project plan and a definition of roles and responsibilities. Pre-register the study.
2. Creation of an annotated dataset. The project leader at SSE recruits a team of annotators (~10), that classify a representative sample of ~ 2000 news headlines downloaded from Retriever. The news headlines are classified on a Likert scale, ranging from 1-5 (very negative, negative, neutral, positive and 5 very positive) and into basic emotions (anger, disgust, fear, joy, sadness, surprise and neutral). Intercoder agreement is evaluated.
3. The data scientist at KBLab uses the annotated dataset to train the KB-BERT model. When intercoder agreement is sufficient, the fine-tuned model is used to classify all Swedish news headlines from 2000-2022.
4. The outcome of the project is published in a relevant scientific journal. Potential extensions and/or modifications of the project are discussed.

References:

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