Quantitative and qualitative approach to Finnish Twitter during the Covid-pandemic: Topics, attitudes, and emotions

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Poster Abstract

The ways we discuss crises affect our understanding of major events and the world in general (Seeger & Sellnow, 2016). These kinds of discussions can even change our behaviour (Mustafa-Awad & Kirner-Ludwig, 2017); thus the study of crisis communication from a linguistic perspective is essential. During the Covid-19 pandemic, social media became an effective arena for crisis communication, and it brought together different actors from decision-makers and healthcare professionals to ordinary citizens through communication and interaction (Spencer, 2023). However, crises are often events in which people react strongly while they try to understand the situation (Bednarek et al., 2022). On social media platforms, discussions get easily heated when different emotions, experiences, and opinions collide. In this poster presentation, we describe how the global health crisis was represented on a popular microblogging site by addressing the following research questions: (1) What kind of topics are discussed on Finnish Twitter during the Covid-19 pandemic? and (2) What kind of attitudes and emotions are attached to these topics? To answer these questions, we utilise a large corpus of 375,322 tweets in Finnish from January 2020 to August 2021. We adopt a multidisciplinary approach to the data as we use complementary quantitative and qualitative methods that allow us both to examine the data as a vast entity and to explore the linguistic meanings in more detail. First, we use the unsupervised machine learning method of topic modelling to automatically identify topics and keywords attached to them (Blei et al., 2003). Next, we study the attitudes and emotions attached to these topics with the framework of evaluative parameters (Bednarek, 2010). Based on the results, the topic model identified 35 pandemic-related topics that cover, for example, emotions and protective measures in healthcare, briefings and news broadcasts, associations offering support services, masks, and quarantine and infection rates. The analysis of the evaluative parameters shows that expressions of emotivity, mental state, importance and necessity were attached to these topics.

Keywords: Covid-19, crisis communication, discourse analysis, evaluation, topic modelling

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