Measurement and Role of Emotions in Online Political Communication During the Ukraine War

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Abstract

How do discrete emotions expressed in political communication on social media during a crisis relate to user engagement? And how can GPT-4 be utilised to measure these emotions? This paper analyses 2,142 messages from President Zelenskyy's official Telegram channel during the Ukraine war, a context where engagement with political leaders' messages is pivotal for informing citizens and bolstering morale. Emotion labels within these messages were generated through zero-shot learning using GPT-4 and subsequently aggregated into classes with word embeddings. This approach achieves a weighted F1 score of 81%, validated through crowdsourcing. Controlling for text and time variables, regression results reveal that a defiant message from Zelenkskyy is associated with a 24% increase in views, while messages conveying fear or outrage are linked with a 33% surge in forwards. However, no discernible effect on reactions was found. These findings are robust to various model and variable specifications. This research demonstrates the potential of GPT models to generate, rather than classify, emotion labels from political text, rivalling the performance of existing methods. It further provides suggestive evidence that during crises, politicians might strategically resort to specific discrete emotions to influence message reach and diffusion in the digital realm.

Keywords: online political communication; measuring discrete emotions; GPT-4; ukraine war

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