

M.Tech Thesis Defense

Multimodal Sarcasm Explanation

ON

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Abstract

Sarcasm is a pervading linguistic phenomenon and highly challenging to explain due to its subjectivity, lack of context and deeply-felt opinion. In the multimodal setup, sarcasm is conveyed through the incongruity between the text and visual entities. Although recent approaches consider it as a classification problem, it is unclear why an online post is identified as sarcastic. Without proper explanation, end users may not be able to perceive the underlying use of irony. In this paper, we propose a novel problem -- Multimodal Sarcasm Explanation (MSE) -- given a multimodal sarcastic post containing an image and a caption, we aim to generate a natural language explanation to reveal the intended sarcasm. To this end, we develop a novel dataset, MORE, with explanation for 3510 sarcastic multimodal posts. Each explanation is a natural language (English) sentence that describes the hidden irony. We then propose EXMORE, a multimodal transformer-based architecture to address MSE. It incorporates a cross-modal attention in transformers encoder which attends the distinguishing features between two modalities. Subsequently, a BART-based auto-regressive decoder is used as the generator. Empirical results demonstrate the efficacy of EXMORE over six baselines (adopted for MSE) and shows >10\% improvement compared to the best baseline across five evaluation metrics.