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Tytuł pracy w języku angielskim: Application of Personalization Methods in the Task of Humorous Content Recognition

Abstract

The subject of this doctoral dissertation is the issue of personalization in the task of recognizing humorous content. The aim of the study was to develop innovative natural language processing (NLP) models that take into account the diverse, individual sense of humor of users. Previous approaches to humor recognition focused on generalized models, which led to the neglect of subjective audience perceptions. As part of the research, a detailed review of humor theories and methods for its automatic recognition was conducted, identifying existing research gaps related to personalization. The models developed in this dissertation are based on advanced neural network architectures, such as GRU and attention mechanisms, which allow for precise consideration of user-specific traits. These models were tested on datasets with different cultural and linguistic contexts, enabling the verification of their ability to adapt to individual preferences in humor perception. Additionally, the application of knowledge transfer techniques, as well as advanced research on the training process of models using multiple data sets and fold-based methods, significantly improved the models' efficiency and flexibility. This approach allowed for an in-depth examination of the models' generalization abilities and their adaptation to new thematic domains, while still accounting for the diverse, individual preferences of users. The research also included a comparison of results generated by the ChatGPT-3.5 model with those obtained by personalized predictive models. Although the generative model demonstrated high effectiveness, the personalized approach proved to be more suitable for recognizing humor in line with the individual preferences of the audience. This dissertation provides substantial evidence that personalization in the task of humor recognition significantly improves prediction quality, surpassing the capabilities of generalized models. The findings emphasize the necessity for the individualization of NLP systems, which opens new horizons in the analysis and generation of content tailored to specific user needs and preferences, making a significant contribution to the development of this field.