

Human word creation vs AI word generation - A comparison of creativity in Neologisms

Generative AI is used more and more in people's everyday life to generate pieces of text. However, texts generated by AIs seem to be less creative and stronger patternised compared to those written by humans due to the calculation of the responses based on large language models. Thus, it raises the question if new created words by humans show similar differences compared to created words by an AI and how language users of English might be influenced in this process when using a generative AI. So far, there has only been research on the process of word formation, solely performed by humans without the help of AIs. Therefore, this study gives first insights on how AIs create new words. In addition, it gives insights on interactions between humans and AIs during the process of word creation. The focus of the study is on the creation of English product names with the help of ChatGPT as a linguistic phenomenon for the creation of neologisms. This process of word creation is examined in three parts of a study including a questionnaire, a production experiment as well as an interview. In two groups, Adult native speakers of English answer sociodemographic questions as well as estimate their own level of creativity. The experimental group answers detailed questions about their experience with generative AI. Following the questionnaire, the participants create five different product names based on given descriptions. The experimental group uses ChatGPT as a supporting tool to create those names, whereas the control group does not use any tools during the task. The analysis of the data is divided into a qualitative analysis based on the results of the production experiment and the interview. The quantitative analysis is based on the questionnaire prior to the production experiment, focusing on creativity and prior experience with generative AI.