

Exploring the role of eye gaze in explanation and understanding

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During interactions between humans, the interaction partners utilise a multitude of modalities to communicate beside just speech. These include but are not limited to hand gestures, head gestures, facial expressions, and eye gaze. Seeing as virtual or robotic assistants (e.g. Alexa, Siri) are becoming increasingly more common, it may become relevant that they can understand and utilise these multimodal signals as well.

Within the framework of project A02 of the Collaborative Research Centre TRR 318 "Constructing Explainability", an interaction study was conducted on the topic of the process of understanding during an explanation. The data from this study will serve as the basis for a master's thesis that will investigate the influence of the interaction partners' gaze behaviour on understanding. The video data will be processed with the open-source software OpenFace which is capable of estimating gaze angles from videos.

The first results of the data exploration, which is carried out with Python, will be presented. Please note that I am still very much at the beginning of my thesis as the method has to be tested for feasibility. One of the leading questions at the moment is whether the data returned by OpenFace is good enough for this research.