

Invited Speaker

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How can we adapt generation to the users cognitive load?

Abstract

As language-based interaction becomes more ubiquitous and is used by in a larger and larger variety of different situations, the challenge for NLG systems is to not only convey a certain message correctly, but also do so in a way that is appropriate to the situation and the user. From various studies, we know that humans adapt the way they formulate their utterances to their conversational partners and may also change the way they say things as a function of the situation that the conversational partner is in (e.g. while talking to someone who is driving a car). Approaches from psycholinguistics (using information-theoretic measures as well as other complexity metrics) provide a way to formulate and quantify the demands that a certain formulation places on a hearer. In this talk, I will briefly survey ways of assessing human cognitive load in realistic settings, present current models of information density at the content level, and discuss the extent to which these measures have been found to drive choice of formulation in humans.