

Quantifiable Dimensions Of Understandability

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Understandability refers to the quality of information entities such as programs, texts, conceptual graphs, etc that makes them more comprehensible to humans. There are diverse approaches to studying this and related problems. While some philosophical works focus on the epistemology of understanding itself, works in psychology, neuroscience and cognitive science propose models of memory, learning, comprehension, etc which are associated with the process of understanding in the human brain.

In this paper, we take a new approach to the problem by focusing on quantification of aspects of understandability. We propose a classification for various quantifiable dimensions of understandability. We provide examples and arguments for why we think this classification generalizes across information entities. For future research, we discuss how pursuing this research direction can help make open world planning in AI more tractable, and help create better software quality tools.