

Solutions and Open Challenges for the Symbol Grounding Problem

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ABSTRACT

This article discusses the current progress and solutions to the symbol grounding problem and specifically identifies which aspects of the problem have been addressed and issues and scientific challenges that still require investigation. In particular, the paper suggests that of the various aspects of the symbol grounding problem, the transition from indexical representations to symbol-symbol relationships requires the most research. This analysis initiated a debate and solicited commentaries from experts in the field to gather consensus on progress and achievements and identify the challenges still open in the symbol grounding problem.

Keywords: Cognitive Robotics, Developmental Robotics, Embodiment, Symbol Grounding, Symbol Relationships
