Gagarin: A Cognitive Architecture Applied to a Russian-Language Interactive Humanoid Robot

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ABSTRACT

Cognitive Architectures have been an active area of research for more than two decades, starting from well-known examples such as ACT-R. Beyond modeling human performance, one of the promising domains of application of cognitive architectures is in real-world embodied situated systems, such as robots. However, most of the existing systems have failed to be used widely, arguably for a number of reasons, the main being that they seem to have provide little added value to real-world complex interactive robot designers as compared to a totally ad-hoc approach. To address this situation, here we will present desiderata and an example of practical real-world cognitive architecture for the humanoid Gagarin, aiming to fill the gap between strongly defined systems and totally ad-hoc.