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## Context and Ontology for Spatially-aware Assistance Agents

Agents that are aware of their spatial environment need to maintain an accurate notion of their position and their possibilities for movement. Moreover, agents that are intended to provide assistance for other agents, particularly but not exclusively humans, need to be able to communicate effectively concerning their positions and the spatially-embedded tasks and goals they pursue with respect to those positions. In this talk I report on the approach to designing spatially-aware assistance agents being developed within the OntoSpace and SharC subprojects of the SFB/TR8 on Spatial Cognition of the Universities of Bremen and Freiburg. Within this approach, we employ the tools and methods of ontology and ontological engineering to organize agents' understandings of their contexts in a way that is maximally supportive of effective communication, both between agents and internally across system components. In the talk I introduce the general role that ontology plays within our architecture and the motivations for the particular ontologies that we are constructing, and then focus particularly on the crucial role of negotiation between ontologies for dynamic alignment during communication and the creation of shared contexts.