

Handling Spatial Reference in Visually-Situated Dialogs (invited presentation)

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This talk describes the application of computational models of spatial prepositions to visually situated dialog systems. An inherent aspect of these dialogs is reference to objects in the environment in which the agents are situated. The talk will present computational models of topological and projective spatial prepositions that are designed to handle spatial reference resolution and generation in complex visual environments containing multiple objects. These models have been implemented in a human-robot dialog system and the talk will conclude by describing how these spatial models were integrated into the robot architecture.