



Bots integrated with human teams must understand intentions

OBJECTIVE

Develop methods enabling autonomous bots to understand and communicate goals, intentions and information using English and other natural languages.

DOD CAPABILITY ENHANCED

Enable soldiers to fluently and effectively convey orders and intentions to autonomous bots on the battlefield and to communicate a rich range of information.

SCIENTIFIC/TECHNICAL APPROACHES

- Develop techniques to analyze not only literal linguistic structure, but also implicit intention
- Incorporate formal models of linguistic structure
- Disambiguate exploiting the specific context of the environment.
- Test adequacy of specifications using empirical, corpus-based methods.

ACCOMPLISHMENTS

- Corpus of team interactions collected & annotated
- Computational models of inferring intention developed
- Architecture for English interaction with Bots developed and prototyped
- New joint inference machine learning algorithms
- New models for Human Robot Interactions
- Collaborated with ARL and USMA