

Hugo ter Doest, Mark Moll, Rene Bos, Stan van de Burgt and Anton Nijholt (1996). Language engineering in dialogue systems. In Proceedings of the Computers in Engineering Symposium. Houston, TX.

Abstract

The analysis of natural language in the context of keyboard-driven dialogue systems is the central issue addressed in this paper. A module that corrects typing errors, performs domain-specific morphological analysis is developed. A parser for typed unification grammars has been designed and implemented in C++; for description of the lexicon and the grammar a suitable specification language has been developed. It is argued that typed unification grammars and especially the newly developed specification language are convenient formalisms for describing natural language use in dialogue systems. Finally we present a dialogue manager that is based on a finite state automaton; transitions in the automaton depend upon availability of information in utterances of the user. In order to keep track of the history of the dialogue, a context stack is constructed during the dialogue. The manager is implemented in Prolog.