

Robust Processing Of Spoken Situated Dialogue

[DOWNLOAD HERE](#)

1;Robust Processing of Spoken Situated Dialogue;1 2;Abstract;4 3;Zusammenfassung;4 4;Rsum;4 5;Acknowledgements;8 6;Introduction;15 6.1;Processing spoken dialogue;16 6.1.1;The issues;16 6.1.2;Key ideas of our approach;19 6.1.3;Discussion and relation to previous work;20 6.2;Human-robot interaction;23 6.2.1;A short historical background;23 6.2.2;Scientific relevance of HRI;25 6.2.3;Dimensions of HRI;26 6.2.4;Cognitive systems for HRI;27 6.3;Considered scenarios;28 6.3.1;Playmate scenario;28 6.3.2;Explorer scenario;29 6.4;Outline;29 6.5;Contributions;31 7;I Background;33 7.1;Situated spoken dialogue;35 7.1.1;Linguistic analysis of spoken dialogue;35 7.1.1.1;Example from the Apollo corpus;35 7.1.1.2;Theoretical analysis;39 7.1.2;Language, context and human cognition;42 7.1.2.1;Phylogenetic and ontogenetic origins;42 7.1.2.2;Situated human language processing;43 7.1.2.3;Five working hypotheses;44 7.1.3;Summary of the chapter;45 7.2;Theoretical foundations;47 7.2.1;Combinatory Categorical Grammar;47 7.2.1.1;Lexicon;48 7.2.1.2;Combinatory rules;49 7.2.1.3;Derivations;49 7.2.2;Hybrid Logic Dependency Semantics;49 7.2.2.1;Hybrid logic;50 7.2.2.2;Encoding linguistic meaning;53 7.2.3;Syntax-semantics interface;54 7.2.4;Segmented Discourse Representation Theory;56 7.2.4.1;Dynamic semantics;56 7.2.4.2;Rhetorical relations;58 7.2.4.3;The SDRT approach in brief;59 7.2.4.4;Event structure;60 7.2.5;Summary of the chapter;60 7.3;Software architecture;63 7.3.1;Global architecture;64 7.3.1.1;Cognitive Systems Architecture Schema;64 7.3.1.2;CAST: an implementation toolkit for CAS;65 7.3.2;The communication subarchitecture;68 7.3.2.1;Representations;68 7.3.2.2;Processes;74 7.3.3;Summary of the chapter;80 8;II Approach;83 8.1;Situated Speech Recognition;85 8.1.1;Introduction to the issue;85 8.1.2;Psycholinguistic motivation;86 8.1.3;Salience modeling;86 8.1.3.1;Visual salience;87 8.1.3.2;Linguistic salience;87 8.1.3.3;Cross-modal salience model;88 8.1.4;Lexical activation;89 8.1.5;Language modeling;90 8.1.5.1;Corpus generation;90 8.1.5.2;Salience-driven, class-based language models;91 8.1.6;Evaluation;92 8.1.6.1;Evaluation procedure;92 8.1.6.2;Results;92 8.1.6.3;Analysis;93 8.1.7;Summary of the chapter;94 8.2;Robust Parsing of Spoken Dialogue;95 8.2.1;Grammar relaxation;97 8.2.1.1;New type-shifting rules;97 8.2.1.2;Paradigmatic heap rules;100 8.2.1.3;Discourse-level

composition rules;101 8.2.1.4;ASR error correction rules;101 8.2.1.5;Control of grammar relaxation;102 8.2.2;Discriminative models for parse selection;102 8.2.2.1;Definition of the task;102 8.2.2.2;A distribution-free approach;103 8.2.3;Learning;105 8.2.3.1;Training data;105 8.2.3.2;Averaged perceptron;106 8.2.3.3;Decoding;107 8.2.4;Features;109 8.2.4.1;Semantic features;109 8.2.4.2;Syntactic features;110 8.2.4.3;Contextual features;111 8.2.4.4;Speech recognition features;112 8.2.5;Additional extensions;113 8.2.5.1;Incremental parse selection;113 8.2.5.2;Max-margin classifier (SVM);116 8.2.6;Summary of the chapter;117 9;III Evaluation & Conclusion;119 9.1;Evaluation;121 9.1.1;Testing data;121 9.1.2;Evaluation procedure;122 9.1.3;Types of quantitative results;122 9.1.4;Quantitative results;124 9.1.4.1;Comparison with baseline;125 9.1.5;Discussion of results;128 9.2;Conclusion;131 9.2.1;Suggestions for further research;132 10;IV Appendices;137 10.1;Packing algorithm;139 10.1.1;Example;139 10.1.2;Data structures;142 10.1.3;Pseudo-code;144 10.2;Detailed results for parse selection;147 10.2.1;Tables;147 10.2.2;Figures;151 10.2.2.1;Global results with all NBest hypotheses;151 10.2.2.2;Detailed results for exact-match;153 10.2.2.3;Detailed results for partial-match;155 10.3;Domain-specific grammar for corpus generation;157 10.3.1;Definitions;157 10.3.2;Grammar specification;158 10.4;References;177 10.5;Index;195 EAN/ISBN : 9783836641135 Publisher(s): Diplomica Discussed keywords: Mensch-Maschine-Kommunikation, Spracherkennung Format: ePub/PDF Author(s): Lison, Pierre

[DOWNLOAD HERE](#)

Similar manuals:

[Robust Processing Of Spoken Situated Dialogue](#)