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Data analysis; Results; Discussion; Conclusion and future work; References; Validating characterizations of sociality in HRI; Introduction Interaction patternsFive approaches to validating characterizations of sociality; The psychometric approach; The literary approach; The modelling approach; The philosophical approach; The structuralist approach; Conclusion; Acknowledgements; References; Attitudes toward robots and factors influencing them; Introduction; Research on attitudes toward robots; Negative attitudes toward robots scale (NARS); Related works with the NARS; Factors influencing negative attitudes toward robots; Generations, educational backgrounds, and experiences: A survey in Japan method; Results; Discussion Summary and future directionAcknowledgment; References; The USUS evaluation framework for user-centered HRI; Introduction; State of the art; The theoretical factor-indicator model; Usability as evaluation factor; Social acceptance as evaluation factor; User experience as evaluation factor; Societal impact as evaluation factor; The methodological framework; Expert evaluation; User studies; Standardized questionnaires; Physiological measurements; Focus groups; In-depth interviews; Validation of the USUS framework in terms of feasibility; Applying the USUS evaluation framework Discussion and outlookAckknowledgements; References; Toward making robots invisible-in-use; Toward making robots invisible-in-use; The ubiquitous computing perspective; Invisible-in-use; Robots as invisible-in-use; Tools study; Respondents and interviewees; Hypotheses; Tools study methods; Data analysis; Results and discussion; Animals study; Respondents and interviewees; Animals study methods; Data analysis; Results & discussion; Implications for theory; Implications for HRI design; Future work; Conclusions; Acknowledgements; References; Joint action, collaboration and communication
A dynamic field approach to goal inference,error detection and anticipatory actionselection in human-robot collaboration

Sommario/riassunto

Human-Robot Interaction (HRI) considers how people can interact with robots in order to enable robots to best interact with people. HRI presents many challenges with solutions requiring a unique combination of skills from many fields, including computer science, artificial intelligence, social sciences, ethology and engineering. We have specifically aimed this work to appeal to such a multi-disciplinary audience. This volume presents new and exciting material from HRI researchers who discuss research at the frontiers of HRI. The chapters address the human aspects of interaction, such as how a