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Abstract.

1 Introduction

Increasingly new technologies are used to assist humans in their daily life. For example, a robot companion for isolated elder. In order to facilitate the help, these technologies need to interact with the user. Therefore, they were allowed with conversational skills [always on always].

In the beginning, conversations with user were task centered (gives directives, ask for information to achieve the task) and the social aspect of dialogue was completely neglected for a long time. However, several researchers proved that social aspect cannot be ignored during the dialogue since the dialogue is social by definition. Moreover, it has been found that users prefer to interact with conversational agents with social skills [?], in addition this skill allows the agent to build a long term relationship with the user[?]. Social conversational agents have in addition to their usual task goals, social goals to achieve. Indeed, Bickmore demonstrated that social goals participate in the satisfaction of task goals. For example, to achieve the task make the user take his medicine, the agent has to satisfy the social goal "put the user in good mood". different social aspects were studied (trust bickmore, emotions ..) different research shows interest in constructing social agents that take in account the social aspect of dialogue. explain that the way we interact with a person that we meet newly is different of the way we talk with a close friend or a hierarchical supervisor ... Thus, the dialogue strategy is directly influenced by the relationship that we construct with the other. In this paper we are interested in studying the impact of interest: how the social relationship of the agent with user will influence its dialogue strategies to satisfy its goals In this article we address a new aspect of user modeling assessing the psychosocial relationship between the person and the computer. And we introduce new methods for adapting the computer's behavior to the user model, as well as for explicitly and dynamically changing this relationship through the use of social talk.

2 Related works

2.1 Interpersonal relationship

brief presentation on what is interpersonal relationship in dialogue and how it could evolve during dialogue and affect the strategies

2.2 Dimensions of interpersonal relationship

present the different dimensions briefly and focus more on the dimension of dominance because it is the one studied in this article

2.3 Social conversational agents

Existing works on social conversational agents