Proposition de recherche doctorale

Model of non-verbal behaviors within socio-emotional context

Mots clés :
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- Domaine scientifique principal: Divers

Résumé du projet de recherche (Langue 1)

Young people are the future of Europe and must be socially included. Yet, recent research suggests that the number of young people not in employment, education or training (NEET) is increasing. Such people often lack social skills and self-confidence. They find it difficult to present themselves in a best light to prospective employers, which may increase their risk of marginalisation. Social coaching workshops, organised by youth inclusion associations, constitute a common approach to helping people to acquire and improve their social competencies. However, it is an expensive and time-consuming solution: it cannot be repeated as often as required. TARDIS proposes to build a scenario-based serious-game simulation platform through which young people at risk of exclusion can practice repeatedly and improve their social skills. They will interact with virtual agents, acting as recruiters in job interviews scenarios, who are designed to deliver realistic socio-emotional interaction. Such agents constitute credible yet tireless interlocutors, allowing young people to explore and improve their interaction skills without the risk of real-life failure.

Résumé du projet de recherche (Langue 2)

The main objective of the thesis is to propose a model of non-verbal behaviour for virtual characters that takes into account the socio-emotional context of the interaction. We consider how a virtual character expresses both felt and faked emotions, and how its expression takes into account the social context (social roles, social relations, personality, …). To go further than existing works on social and emotional non-verbal behaviour (Bevacqua et al, 2008; Mancini et al., 2008; Niewiadomski et al. 2009; Pelachaud, 2009), we will particularly focus on the dynamic properties of virtual characters’ facial and body expressions of felt and fake emotions; the development of a context-free lexicon that correlates social signals to social attitudes; the development of a framework to define the social non-verbal behaviour tendency depending on the social context; and the implementation and evaluation of a computational model that enables one to determine a virtual character’s non-verbal behaviour given a socio-emotional context. Moreover, agents will be situated in a context (defined by the scenario) that can support both the scene realism/variability and the social aspects in the interaction. Agents will act on their environment and these actions can reflect socio-emotional behaviours.

Informations complémentaires (Langue 1)

This thesis takes place within the EU project TARDIS.