Steps Towards Creating Socially Competent Game Characters

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Doctoral Dissertation

Abstract

This thesis investigates and presents approaches towards creating more socially competent NPCs by means of natural language dialogues. The aim is to provide hands-on solutions for game developers who want to offer interactions with the NPCs in the game that are socially driven rather than functionally motivated and that encourage the player to build and maintain relationships between the character they control and the other game characters. By means of gameplay design patterns (GDPs), i.e. a semi-formal means of describing, sharing and expanding knowledge about game design, a selection of games have been analysed in order to identify existing and hypothetical GDPs for game dialogues. The analysis resulted in a number of GDPs that support, or could support, social interaction among game characters. A selection of the identified patterns has then been modelled using Harel statecharts and implemented in State Chart XML, a candidate to become a W3C standard.

Keywords: dialogue systems, non-playable characters, computer games, SCXML, statecharts, socially oriented dialogues