An Emotional Model For Background Characters In Open World Games

Niall Mullally

Supervisor: Dr. Mads Haahr

YouTube videos available : $https://www.youtube.com/user/NiallMullallyTcd$

The goal of this dissertation is the creation of an Emotional Model that can be used to increase believability of background Non-Player Characters (NPCs) in open world games. Background AI used in these games are simplistic due to the fact that they must be very efficient and not hinder the performance of the game, as the number of NPCs visible on the screen at any time could be 30-40+. While these NPCs are simplistic they are vital for the immersion of the player into this new world. Created in this dissertation is a emotional model which can be easily applied to NPCs to provide them with emotional states. An Action Selection Manager evaluates the NPC's current emotional state and chooses the next action based on these values. The actions picked alter the emotional state of the NPCs. Each NPC's personality comes from being randomly assigned Traits. These traits, e.g. Energetic or Alcoholic, give each NPC a unique personality. Traits are assigned at the initialization of the NPC and modify its actions. The model is tested and evaluated in a game environment and is deemed successful since the NPCs created are plausible. This model could have potential use in games with further improvements.