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Abstract

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Emotional Affect from Procedural Content Generation

By Eóin Fintan Joseph Murphy

Supervisor: Mads Haahr

Procedural Content Generation (PCG) is a very successful tool that has been widely used in the videogame industry. While the tools have been used for various purposes such as creating dynamic textures, characters and even music it is primarily limited to creating levels and environments within games. This does create unique and interesting worlds but does not necessarily engage the audience.

Previous work in this area has attempted to create puzzles and challenges for the players using these methods. This dissertation tries to go one step further, to guide the content generation using an emotional model to capture the emotional state of the player and how it changes. By targeting the emotions of the player and altering them through gameplay; richer and more engaging content can be created.

In this dissertation Russell's two-dimensional model for emotions is combined with a puzzle generating engine to guide the content created for the player, based on their emotions. The result is a search through the game mechanics for gameplay that both achieves some local goal and engages the player on an emotional level.

This opens up the field for further investigation while giving developers more creative control over these procedural content creation systems.