Readers Guide

Glossary

Report

Group 514

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1 Introduction

2   Investigation

2.1   Initial Problem Statement

Is it possible to create an "Artificial Intelligence" opponent in a game, which evolves according to the players skills and performance. An opponent that would never become too difficult or too easy, but instead create a challenge according to players performance.

2.2   Artificial Intelligence

The idea of Artificial Intelligence has been around for centuries, first introduced in the Greek myth of Hephaestus.

2.3   Adaptive difficulty

describe how an AI could evolve according to players skill and performance. Which could be by the use of evolutionary algorithms.

2.3.1   what is difficulty?

describe how one can define difficulty in games. How can difficulty be idenfitied? Is it not dependant on each specific game/game mechanics? We find Dynamic game difficulty balancing. Perhaps research others.

2.4   Game selection

Define through research plausible game genres/types which can be used. Describe that we focus on either TD, RTS and Pacman. document with aquired research.

2.5   Final Problem Statement

Can an adaptive difficulty be implemented in Pacman through the use of a genetic algorithm in accordance with dynamic game difficulty balancing?

3 Analysis

4 List of Requirements

5 Methods

6   Design

7 Implementation

8 Evaluation

9 Re-design

10   Discussion

11 Conclusion

12   Appendices