

Readers Guide

Glossary

Report

Group 514

November 13, 2014

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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

2.3 What is AI

2.4 Identify exiting types of AI

2.5 Genetic algorithm

2.6 Game Selection Research

2.7 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

3.1 Pacman

3.2 Mechanics/Game parameters

3.3 Pre existing AI in Pacman

3.4 Pacman difficulty

Identify what defines "difficulty" in Pacman

3.5 Pacman software

pre existing Pacman software that we will use? (Research).

3.6 Dynamic Game Difficulty Balancing

3.7 Flow

What is it, and how to we identify it?

3.8 What did others do?

How did others implement DDA in games? (Research)

3.9 Adaptive Difficulty

Go more in depth of Dynamic difficulty from previous chapter. what exactly describes AD and how can it be useful to us? something something.

3.10 Genetic algorithm

introduction - what it is

3.11 Genetic algorithm: Technical and theorical implementation

...etc. Account for unknown content here as i know shit about the subject.

4 List of Requirements

5 Methods

6 Design

7 Implementation

8 Evaluation

9 Re-design

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12 Appendices