Artificial Intelligence And Videogames

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Abstract

Artificial intelligence (AI) application in digital games refers to machine learning algorithms and programs to solve a set of game dependent problems. Machine learning techniques enable the immersive feeling human player by simulating the real interaction between bot player and human.[5]

1 Introduction

Videogames have been popular over 50 years with more and more investment into it. they have played multiple various parts in human learning depending on factors such as context, goal, participant structure, nature of the videogame used, topically relevant theme, and demographic population. [7] Machine learning has been connected with Videogames for a long time with many attempts. [1] In recent years, the computer games industry found it more and more necessary to introduce AI to make videogames more entertaining and challenging. [2, 4] The application of AI in Game industry is practical and viable. [6]

2 Reasons

There are lots of benefits to do research on the connection between AI and videogames, such as ecomomic and practicality. [9] Generally speaking, there are 3 points to choose "AI and Videogames" as the topic:

1. Appropriate and self-contained research environment are offered in many videogames [8], which was equipped with built-in AI interfaces. It's convenient for researcher to build their AI evaluation system. Also, dedicated API for AI experiment is offered in some game platforms. [3]

2. Game industry attract many investments and plenty of players. Therefore, the payback of AI module development is expectable rather than

AI applications on other businesses.[8] It is worthwile to invest on the research on AI development on game program or platform.

3. Artificial intelligence in particular has much to offer to computer gaming. The quality of a game's AI is now a leading product differentiator; poor AI can kill a game and great AI becomes an important selling point. From an AI research perspective, game-oriented research offers new, richer simulated worlds and the chance to have significant impact on an important industry. [4]

3   Conclution

Many facts suggest that AI is already a non-negligible factor in videogame success, these articles suggest that it can lead to novel entertainment genres. While AI in many games are still not so satisfactory and dumb. More attention is needed to develop more smart AIs.

References

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