AlphaGo

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1 Introduction to Go

Go is a popular board game played in ancient China, Japan and Korea. It puts us in a farthest situation beyond our capacity. Reason behind people playing Go from many years is because it just don't make them understand Go but understand what understanding is.

2 AlphaGo

Demis Hassabis, the CEO of Deep Mind designed a computer program called AlphaGo. He believes games are perfect platforms for developing and testing AI algorithms. He invited Fan Hai, European Go Champion and a 2-dan professional to visit AlphaGo. Then Fan agreed to play a 5 game match with AlphaGo, thinking he will win all 5 games beating AlphaGo because it's just a program. But he lost to AlphaGo without even winning a single match.

AlphaGo is a difficult computer program compared to chess because number of possible moves in a position is more. Numbers of possible configurations on a Go board are more than number of atoms in the universe. AlphaGo is trained by showing more than 100,000 games then playing against different versions of itself million times. AlphaGo works mainly on 3 components Policy network, Value network and Tree search.

After the match with Fan Hai, AlphaGo is set to play a 5 game match with Lee Sedol, a 9-dan professional and a Go champion with 18 world titles. Lee is known for his creative fighting play in Go. Lee is confident about winning the match with 5-0 or 4-1 and also he said that he is concentrating more not to lose that one game. Fan Hai was made the referee for the match between AlphaGo and Lee Sedol. The public was expecting Lee Sedol to win the match easily.

3 AlphaGo vs Lee Sedol

At the start of the 1st game, AlphaGo has taken too long to make its first move. As the game progressed Lee Sedol lost his confidence and felt exhausted. AlphaGo has made some mistakes but it managed to win the 1st game against Lee Sedol. Lee seemed nervous for the 2nd game and played much slower than his usual style. In the 2nd game AlphaGo made a creative move beyond human imagination which shocked everyone and finally making the lead 2-0. Lee tried to fight directly in the 3rd game but he again lost to AlphaGo. He felt relaxed for the 4th game and then made a unique move which even AlphaGo cannot expect. After this move AlphaGo started making mistakes and finally Lee won a game against AlphaGo. Lee started game 5 with more confidence. This game

looked good for Lee initially but lost to AlphaGo ending this 5 game match with 4-1 leading by AlphaGo.

4 Effect of AlphaGo

This match of Lee Sedon with AlphaGo learnt him more strategies in Go. This victory is considered as the breakthrough in the fied of Artificial Intelligence(AI). This match has also increased the interest of public in AI.