Abstract

The soft computing approach for gaming is different from the traditional one that exploits knowledge of the opening, middle, and endgame stages. It aims to evolve efficiently some simple heuristics that can be created easily from the basic knowledge of the game. Integrating sphere knowledge into soft computation can enhance the performance of evolved algorithmic methodologies and quicken the learning of solution finding. In this paper, one of the major constituents of soft computing—genetic algorithm approach is employed to develop a game playing program for Reversi (Game of Othello). Evaluation function based genetic game playing strategies are been used to implement than a single simple heuristic based one.
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Genetic parameters implemented using Reversi game based fitness function using min–max search algorithm is strategic combination focus of the paper. Experimental results show that the proposed method is promising for generating better strategies. Developing players programs for board games has been part of novel soft computing research arms for decades. Board games have precise, easily formalized rules that make them perfect modeling in a programming environment. In this paper focus is on full knowledge (perfect information), deterministic, zero-sum board games by inculcating genetic algorithm as better move making search optimization.

References

- Y. Jin and B. Sendhoff. Tradeoff between performance and robustness: An evolutionary
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Index Terms

Computer Science
Communication and Networks

Keywords

Soft Computing  Reversing  Fitness Function  Genetic Algorithm  Genetic Weight