A New General Method of Relational Heuristics Utilizing Agent-Based Collective Intelligence

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A method of identifying and utilizing relationships within data was created. This system was implemented using a collection of agents that have individualized goals and are capable of self-determination. These agents are assigned to fulfill various requirements of an algorithm. Each agent possesses traits that modify the queries they perform on their initial breadth-first search for solutions pertaining the algorithm's goals. These attributes are subject to modification, and range from the depth the agent will search, to its willingness to select solutions that have already been explored by other agents. The results of each of these queries are then aggregated and examined by the algorithm using a scoring system that takes agent attributes into consideration. All of these aspects result in a system that provides highly unique, yet structured solutions to a broad range of problems. The system is applicable in any scenario where a variety of distinct, heuristic answers are favored. Examples of these applications include recommendation systems, curriculum development for individuals or schools, or even medical diagnoses. The agent management algorithm is highly customizable, allowing the system to be adapted for a wide range of purposes with varying complexity and size.