Follower Behavior in a Virtual Environment

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Crowd simulation models typically combine low level and high level behavior. The low level deals with reactive behavior and collision avoidance, while the high level deals with path finding and decision making. There has been a large amount of work studying collision avoidance maneuvers for humans in both virtual reality and from real data. When it comes to high level behavior, such as decision making when choosing paths, there have been many approaches to try to simulate the large variety of possible human decisions, for instance based on minimizing energy, visibility, or path length combined with terrain constraints. For long, it has been assumed that in an emergency situation, humans just follow the behavior of others. This social behavior has been observed in the real world, and thus mimicked in crowd simulation models. However, there is not an accurate model yet to determine under what circumstances this behavior emerges, and to what extent. This paper focuses on studying human behavior regarding following others, during an evacuation situation without imminent danger.

http://dx.doi.org/10.1007/978-3-030-00934-2_71