

## Using Swarm Intelligence to Forecast Outcomes of English Premier League Matches

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**Abstract :** In this study, machine learning techniques were deployed on real-time human swarm data to forecast the likelihood of outcomes for English Premier League matches in the 2020/21 season. These techniques included ensemble models in combination with neural networks and were tested against an industry standard of Vegas Oddsmakers. Predictions made from the collective intelligence of human swarm participants managed to achieve a positive return on investment over a full season on matches, empirically proving the usefulness of a new artificial intelligence valuing human instinct and intelligence.

**Keywords :** artificial intelligence, data science, English Premier League, human swarming, machine learning, sports betting, swarm intelligence

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