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Identifying Appropriate Games for the Missouri S&T Introduction to Artificial Intelligence Course & Tournament

The CS 347: Introduction to Artificial Intelligence (AI) class and the following AI versus human tournaments have shown that some testing of a game should be done before it is used as an educational vehicle, such as whether it provides a fair and challenging contest in a tournament. Until now, very little work has been done to study how well a game would perform in a tournament with both human and AI players before holding the tournament itself.

This research identifies several possible ways a game can be ill-suited to this class and/or tournament from previous experience, and describes and utilizes a general test schema that can be applied to any turn-based two-player game to quantify a game's suitability in each of these respects.

Tim Coalson is a senior in Computer Science and is considering graduate studies on Artificial Intelligence (AI) or Evolutionary Algorithms. He grew up in St. Louis, Missouri and graduated from Parkway North High School in 2004. He placed third with his AI submission in the Fall 2007 AI Tournament which featured the game Mancala.