

Computers can't play like people - yet

Can a computer play games the way a person can? Computer researchers in artificial intelligence have created grand master level computer programs for games like chess (where IBM's "Deep Blue" famously defeated world champion Garry Kasparov in 1997) and checkers (where "Chinook" beat world champion Marion Tinsley in 1994), but how much fun is it to play against these almost perfect computer players?

People like to play against opponents who are like themselves – opponents with personality, who can surprise, who sometimes make mistakes, yet don't robotically make the same mistakes over and over. Computers are superbly fast and accurate at playing games, but can they be programmed to be more fun to play – to play like you and me?

This was the challenge set for computer programmers in the **\$10,000 2008 2K Bot Prize Contest**, which took place on 17th December at The University of Western Australia. The contest attracted an international field, with teams from Australia, the Czech Republic, the United States, Japan and Singapore competing in the final. A "bot" is a character in a computer game that is controlled using artificial intelligence. Competitors were challenged to create a bot to play a combat game. Expert judges then tried to tell whether they were playing a bot or a human, just from their observation of the way they played the game.

Many pundits thought it was obvious that the judges would be able to tell, while others were equally sure that a good player could not be distinguished from a bot. So who was right? The results were interesting: you can fool some of the judges, some of the time!

The winning team AMIS, from Charles University in Prague, managed to fool 2 out of the 5 expert judges, and achieved an average "human-ness rating" of 2.4 out of 4. All the human players were judged more human than the bots overall, but the judges were fooled often enough to suggest that in next year's contest, some bots may be able to pass the test by fooling 4 out of 5 judges. AMIS won \$2,000 cash plus an all expenses paid trip to the Canberra studio of competition sponsor, Australian game development company 2K Australia (creator of the award-winning BioShock).

The Bot Prize contest was part of the 2008 IEEE Symposium on Computational Intelligence and Games. Full details of the contest can be found on the web site at www.botprize.org.

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