

Approaching artificial intelligence for games - the Turingtest revisited

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Abstract

Today's powerful computers have increasingly more resources available, which can be used for incorporating more sophisticated AI into home applications like computer games. The perhaps obvious way for using AI to enhance the experience of a game is to make the player perceive the computer-controlled entities as intelligent. So, what makes people willing to set aside their knowledge that the entity is artificial and not human? The traditional idea of how to determine whether a machine can pass as intelligent is the Turing test. In this paper we argue that it is possible and useful to conduct a test adhering to the intention of the original Turing test. We present an empirical study exploring human discrimination of artificial intelligence from the behaviour of a computer-controlled entity used in its specific context and how the behaviour responds to the user's expectations. In our empirical study the context is a real-time strategy computer game and the purpose of the AI is merely to pass as an acceptable opponent. In the full paper, we will present and discuss the results of the empirical study conducted and its implications for AI in computer applications.