

Title: Episodic Memory with Believable Forgetting

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Abstract:

Presented thesis introduces a model of episodic memory for virtual humans extended by believable forgetting based on rating of memories according to their importance. It is inspired by a psychological model of E. Tulving and experiments of W.A. Wagenaar and M. Linton and builds on a memory model for a human-like agent developed by Klára Pešková, which we modified for the needs of forgetting. Our model takes advantage of the level-of-detail approach to forget the parts of memories gradually. In addition to the age and particularity of memories, emotiveness is also considered during the rating of memories. A simple emotional model was created for this purpose. The functionality of our model was verified by implementing it into a prototype application, which simulates the life of a virtual human in a virtual world. Our experiments showed that the behavior of our model, when configured properly, corresponds with the psychological concepts.

Keywords: episodical memory, forgetting, virtual human, emotion, believability