

A platform for Embodied Conversational Agents based on Distributed Logic Programming^{*}

Anton Eliëns, Zhisheng Huang and Cees Visser
Intelligent Multimedia Group
Vrije Universiteit, Amsterdam,
Department of Mathematics and Computer Science
De Boelelaan 1081, 1081 HV Amsterdam, Netherlands

{eliens,huang,ctv}@cs.vu.nl

ABSTRACT

In this paper we will outline the requirements for a software platform supporting embodied conversational agents. These requirements encompass computational concerns as well as presentation facilities, providing a suitably rich environment for applications deploying conversational agents.

We will then propose a platform based on the distributed logic programming language DLP and X3D, the extensible Web3D format. Three case studies will be described, illustrating the potential of the DLP+X3D platform: a multi-user game with autonomous players, avatars commenting on rich media presentations, and a gesture scripting language for humanoids based on dynamic logic.

In conclusion, we will discuss related work and review the evaluation criteria that pertain to the deployment of embodied conversational agents in rich media 3D environments.

^{*}www.cs.vu.nl/eliens/research/media/platform.html