Cultural Simulation Agent Creation for the Masses

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Abstract

There is a general need for a better understanding of other cultures, and we feel that widely available simulation experiences to help people interact in order to learn and understand cultures could be a very powerful tool in this regard. This approach could be particularly effective if users from across the world could create these cultural sims and allow them to be collected into an accessible global cultural experience exchange. The advances in computer game technology and readily available tools for creating environments can easily provide such playgrounds for cultural exchange; however, the largest impasse currently exists in the lack of easily accessible and usable tools for creating interactive characters—especially ones that can reflect the desired culture.

The current state of the art in developing agents for simulations involves complex programming, advanced graphical building interfaces, and leveraging an information poor environment to produce canned, specialized interactions targeting usually narrowly defined scenarios with few potential outcomes. The DASSIEs (Dynamic Adaptable Super-Scalable Intelligent Entities) project aims to change this by presenting a new agent development tool and highly configurable agent core aimed for use by the common person—one that everyone would be able to use effectively. We leverage a Behavior-based Architecture defined within Brookian-based Subsumption as a base for layered and hierarchical behavior descriptions with an agent description language that translates under its defined framework these concepts for use in simulation based agents.

We present our pilot work on the CULTURE (Culture Understanding and Learning Tool Using Real-world Examples) project that provides a framework for developing cultural scenarios leveraging the agent builder and agent core from the DASSIEs Project. Results from our initial user trials, and an in-lab case study modeling the culture of a Parisian Café will be presented with the lessons learned from the process.

For more information

Please visit us on the web at http://playground.uncc.edu/GameIntelligenceGroup/Projects/CULTURE