ARTIFICIAL INTELLIGENCE AND INTERACTIVE ART
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Interactive art and entertainment are increasingly being explored by researchers, artists, and product developers. An ideal system would be deeply interactive, yet provide the richness and emotional impact of art and entertainment expressed through traditional media. This requires the computing system to make decisions on its own, during interaction, that are normally made with great care by artists. In turn, this means that some of the artist's knowledge, sensitivities, and capabilities must be transferred into the interactive system, so that it can serve as the artist's emissary during interaction. The Oz Project at Carnegie Mellon is exploring one variation of this theme. We want to provide users with the experience of living in dramatic simulated worlds that include rich and believable characters. Our research falls into three areas, which we believe are central to this goal.

• the construction of broadly capable, though perhaps shallow, autonomous agents that integrate elements of perception, cognition, emotion, action, and language,

• the construction of a computational theory of interactive drama, to gently shape the user's overall experience, and

• the development of computational methods for varying the presentation style of the experience, by analogy with film technique and writing style.

One product of our work is an interactive animated world containing several autonomous creatures. These "Woggles" blend goal-directed behavior, reactivity, emotion, perception, and smooth multi-channel motor control in a single real-time architecture for mind. They were first shown at the AAAI-92 Artificial Intelligence Based Arts Exhibition.