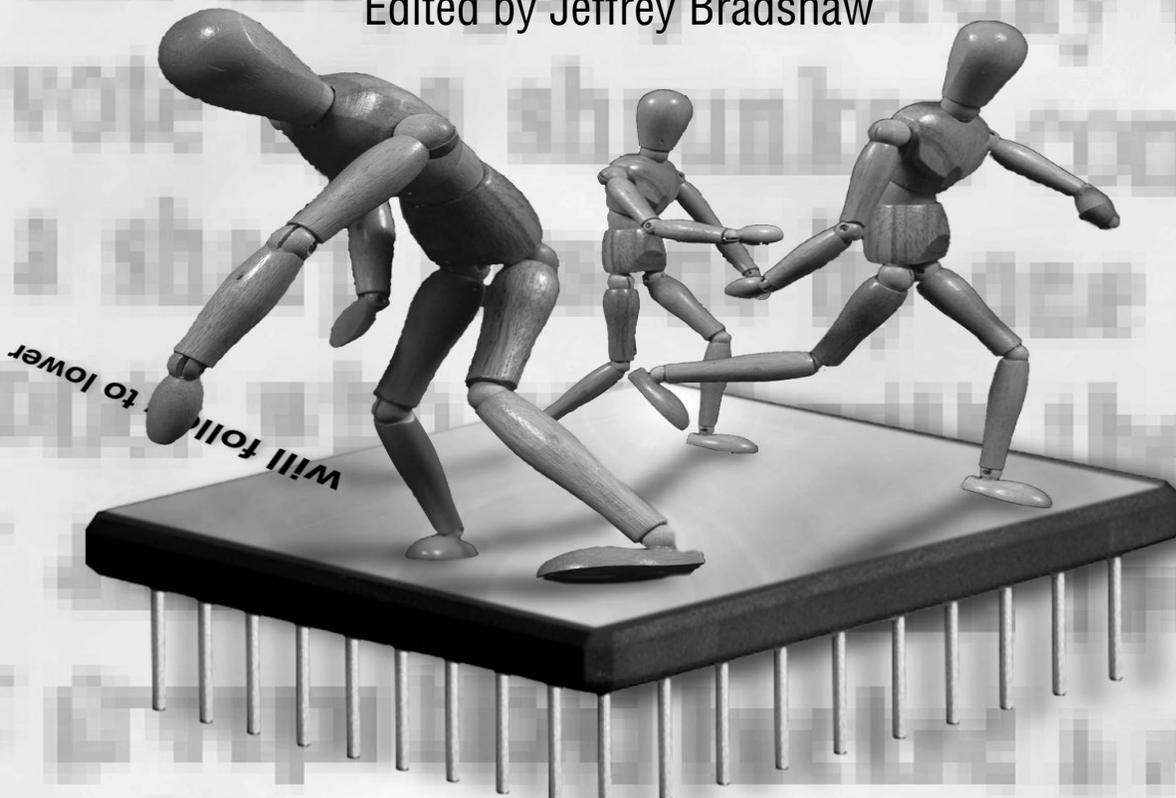# Software Agents

Edited by Jeffrey Bradshaw

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The chapters in this book examine the state of today's agent technology and point the way toward the exciting developments of the next millennium. Contributors include Donald A. Norman, Nicholas Negroponte, Brenda Laurel, Thomas Erickson, Ben Shneiderman, Thomas W. Malone, Pattie Maes, David C. Smith, Gene Ball, Guy A. Boy, Doug Riecken, Yoav Shoham, Tim Finin, Michael R. Genesereth, Craig A. Knoblock, Philip R. Cohen, Hector J. Levesque, and James E. White, among others. 500 pp.,ISBN 0-262-52234-9

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The Sixth International Conference on Intelligent User Interfaces

Kristian J. Hammond

With technomusic in the hallways and a steady blue glow greeting attendees in the elevators, participants at the Sixth International Conference on Intelligent User Interfaces (IUI2002) had a slightly "different than usual" conference experience. Held at San Francisco's W Hotel, the conference included work from researchers and practitioners who are developing novel user interface and interaction paradigms that incorporate advanced reasoning and modeling techniques.

In the past few years, user interfaces have faced increasingly challenging tasks, larger numbers of users with a wide range of computer skills, and the widespread use of new platforms such as mobile devices. These trends have led to a need for advanced techniques for communication and collaboration, personalization and adaptation of behavior, agent-based assistance, integrated multimodal interfaces, and a variety of intelligent front ends for complex environments and tasks.

Aimed directly at these problems, IUI2002's papers covered diverse topics, including interfaces for collaboration and sharing, interaction through the physical world, sketching, the handling of multiple modalities and devices, intelligent assistants for complex tasks, visualization tools, model-based interfaces, and intelligent agents.

Our invited speakers provided a variety of perspectives from the point of view of usability (Don Norman, Northwestern University) and ongoing implementation (Eric Horvitz, Microsoft Research) and a radical new view of user interfaces from the point of view of the interactive gaming industry (Harry Gottlieb, Jellyvision).

Don Norman started the conference with controversy by opening with, "I'm not sure why I was invited to a conference on intelligent user interfaces, in that I don't believe in them." He then went on to outline the requirements that he felt had to be met for interfaces, intelligent or not, to succeed when placed in front of real users.

Horvitz provided a captivating description of what he now sees as a multilayered toolbox for the support and control of intelligent response to user actions. He argued that we are now living in a time where we can craft complex intelligent interface models from off-the-shelf components that have been developed in the past.

This article describes the Sixth International Conference on Intelligent User Interfaces. An overview of the conference is given, including the topics covered at the conference and the presentations given by the invited speakers.

Perhaps the most surprising speaker was Jellyvision founder Gottlieb. Gottlieb stepped through a model of interaction that is driven by the desire to build systems that have genuine conversations with the user. With live examples of systems and a straightforward list of do's and don'ts, Gottlieb crafted a compelling, and astoundingly well-received, argument for a new breed of intelligent interface.

Our first panel opened the door to the University of Southern California's Institute for Creative Technologies and gave attendees a glimpse of how the collaboration between the film industry and computer technologies can result in an exciting new set of interactive training and educational systems. Likewise, our second panel provided a snapshot of intelligent interfaces beginning to affect traditional education.

The paper sessions provided attendees with established results, and the poster and demonstration session gave them a view into the exciting next generation of intelligent user interfaces. With two dozen live demonstrations, ranging from an interactive voice-driven cooking system to behavior-based music recommendation systems, the session was alive with the questions, interaction, and conversations that drive a field forward.

Acknowledgments

Kristian J. Hammond is director of Northwestern University's Intelligent Information Laboratory (InfoLab). In 2001, Hammond also founded and was named director of Northwestern University's Information Development Laboratory. Hammond received his bachelor of arts in philosophy (1979), his master of science in computer science (1982), and his doctor of philosophy in computer science (1986), all from Yale University.