

1. Record Nr.	UNINA9910143626503321
Titolo	Cooperative Information Agents IV - The Future of Information Agents in Cyberspace : 4th International Workshop, CIA 2000 Boston, MA, USA, July 7-9, 2000 Proceedings // edited by Matthias Klusch, Larry Kerschberg
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2000
ISBN	3-540-45012-2
Edizione	[1st ed. 2000.]
Descrizione fisica	1 online resource (X, 282 p.)
Collana	Lecture Notes in Artificial Intelligence ; ; 1860
Disciplina	006.3/3
Soggetti	Computer science Artificial intelligence Data structures (Computer science) Database management Information storage and retrieval Application software Popular Computer Science Artificial Intelligence Data Structures and Information Theory Database Management Information Storage and Retrieval Information Systems Applications (incl. Internet)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Personal Information Agents on the Internet -- Adding Life-Like Synthetic Characters to the Web -- Affective Computing for Future Agents -- Agent-Based Information Gathering and Mediation -- Knowledge Agents on the Web -- ICEBERG: Exploiting Context in Information Brokering Agents -- A Dynamic Access Planning Method for Information Mediator -- What Is Query Rewriting? -- Applying Agents to Bioinformatics in GeneWeaver -- Rational Information Agents for E-Commerce -- Economic Incentives for Information Agents --

Auctio-Based Agent Negotiation via Programmable Tuple Spaces -- Task Assignment in Multiagent Systems Based on Vickrey-Type Auctioning and Leveled Commitment Contracting -- Bilateral Negotiation with Incomplete and Uncertain Information: A Decision-Theoretic Approach Using a Model of the Opponent -- On Ensuring Lower Bounds of Negotiation Results -- Towards an Experience Based Negotiation Agent -- Societies of Information Agents -- Emergent Societies of Information Agents -- A Social Mechanism of Reputation Management in Electronic Communities -- A Cybernetic Approach to the Modeling of Agent Communities -- Role of Acquaintance Models in Agent-Based Production Planning System -- Issues of Communication and Collaboration -- Agent Communication and Cooperative Information Agents -- Towards Information Agent Interoperability -- Exploiting the Ontological Qualities of Web Resources: Task-Driven Agents Structure Knowledge for Problem Solving -- Automatic Ontology Construction for a Multiagent-Based Software Gathering Service -- Information Agents: Future Inspirations and Design -- Inspiration for Future Autonomous Space Systems -- Mobile Information Agents for Cyberspace -- State of the Art and Visions -- Design of Collaborative Information Agents.

Sommario/riassunto

These are the proceedings of the Fourth International Workshop on Cooperative Information Agents, held in Boston Massachusetts, USA, July 7-9, 2000. Cooperative information agent research and development focused originally on accessing multiple, heterogeneous, and distributed information sources. Gaining access to these systems, through Internet search engines, application program interfaces, wrappers, and web-based screens has been an important focus of cooperative intelligent agents. Research has also focused on the integration of this information into a coherent model that combined data and knowledge from the multiple sources. Finally, this information is disseminated to a wide audience, giving rise to issues such as data quality, information pedigree, source reliability, information security, personal privacy, and information value. Research in cooperative information agents has expanded to include agent negotiation, agent communities, agent mobility, as well as agent collaboration for information discovery in constrained environments.

The interdisciplinary CIA workshop series encompasses a wide variety of topics dealing with cooperative information agents. All workshop proceedings have been published by Springer as Lecture Notes in Artificial Intelligence, Volumes 1202 (1997), 1435 (1998), and 1652 (1999), respectively. This year, the theme of the CIA workshop was "The Future of Information Agents in Cyberspace", a very fitting topic as the use of agents for information gathering, negotiation, correlation, fusion, and dissemination becomes ever more prevalent. We noted a marked trend in CIA 2000 towards addressing issues related to communities of agents that: (1) negotiate for information resources, (2) build robust ontologies to enhance search capabilities, (3) communicate for planning and problem solving, (4) learn and evolve based on their experiences, and (5) assume increasing degrees of autonomy in the control of complex systems.
