

Handout 1: Resources in Agents and Multiagent Systems

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1. Introduction

This resource document is by no means complete. It consists of two categories: (1) papers related to agents and multiagent systems, and some distributed intelligent systems, suitable for the class, and (2) some relevant journals publishing agent-related papers.

2. Papers

Multiagent Systems and Models

Brennan, R. W. (2007). Toward Real-Time Distributed Intelligent Control: A Survey of Research Themes and Applications, *37*(5):744-764.

Helleboogh, A., G. Vizzari, A. Uhrmacher, and F. Michel (2007). Modeling Dynamic Environments in Multi-Agent Simulation, *Journal of Autonomous Agents and Multiagent Systems*, **14**:87-116. (hellebooghetal2007)

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Huhns, M. N. and M. P. Singh (1999). A Multiagent Treatment of Agenthood, *Applied Artificial Intelligence*, **13**(1-2):3-10. (hughsingh1999.pdf)

Padgham, L. and P. Lambrix (2005). Formalisations of Capabilities for BDI-Agents, *Journal of Autonomous Agents and Multiagent Systems*, **10**:249-271. (padghamlambrix2005)

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Valckenaers, P., J. Sauter, C. Sierra, and J. A. Rodriguez-Aguilar (2007). Applications and Environments for Multi-Agent Systems, *Journal of Autonomous Agents and Multiagent Systems*, **14**:61-85. (valckenaersetal2007)

Multiagent Environments

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Viroli, M., T. Holvoet, A. Ricci, K. Schelfhout, and F. Zambonelli (2007). Infrastructures for the Environment of Multiagent systems, *Journal of Autonomous Agents and Multiagent Systems*, **14**:49-60.

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Teamwork

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Dunne, P. E., M. Wooldridge, and M. Laurence (2005). The Complexity of Contract Negotiation, *Artificial Intelligence*, **164**(1-2):23-46. (dunneetal2005.pdf)

- Dolgov, D. A. and E. H. Durfee (2006) Resource Allocation Among Agents with MDP-Induced Preferences, *Journal of Artificial Intelligence Research*, **27**:505-549. (dolgovdurfee2006.pdf)
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- Faratin, P., C. Sierra, and N. R. Jennings (1998). Negotiation Decision Functions for Autonomous Agents, *Int. Journal of Robotics and Autonomous Systems*, **24**(3-4):159-182. (faratinetal1998.pdf)
- Faratin, P., C. Sierra, and N. R. Jennings (2002). Using Similarity Criteria to Make Issue Trade-Offs in Automated Negotiations, *Artificial Intelligence*, **142**:205-237. (faratinetal2002.pdf)
- Grosz, B. and S. Kraus (1996). Collaborative plans for complex group action, *Artificial Intelligence*, **86**(2):269-357. (groszkraus1996.pdf)
- Grosz, B. J. and S. Kraus (1998). The evolution of SharedPlans, in Rao, A. and M. Wooldridge (eds.) *Foundations and Theories of Rational Agency*, Kluwer Academic Publishing. (groszkraus1998.pdf)
- Grosz, B. J., S. Kraus, D. G. Sullivan, and S. Das (2002). The Influence of Social Norms and Social Consciousness on Intention Reconciliation, *Artificial Intelligence*, **142**:147-177. (groszetal2002.pdf)
- Huynh, T. D., N. R. Jennings, and N. R. Shadbolt (2006). An Integrated Trust and Reputation Model for Open Multi-Agent Systems, *Journal of Autonomous Agents and Multiagent Systems*, **13**:119-154. (huynhetal2006.pdf)
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Zhang, X., V. Lesser, and R. Podorozhny (2005). Multi-Dimensional, MultiStep Negotiation for Task Allocation in a Cooperative System, *Journal of Autonomous Agents and Multiagent Systems*, **10**:5-40. (zhangetal2005.pdf)

Learning

Banerjee, B. and J. Peng (2007). Generalized Multiagent Learning with Performance Bound, to appear in *Journal of Autonomous Agents and Multiagent System*. (banerjeepeng2007)

Banerjee, B., S. Sen, and S. Saha (2004). On-Policy Concurrent Reinforcement Learning, *Journal of Experimental and Theoretical Artificial Intelligence*, **16**(4):245-260. (banerjeeetal2004.pdf)

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Real-Time

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Monitoring

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Nair, R., M. Tambe, S. Marsella, and R. Raines (2004). Automated Assistants for Analyzing Team Behaviors, *Journal of Autonomous Agents and Multiagent Systems*, **8**(1):69-111. (nairetal2004.pdf)

Wilkins, D. E., T. J. Lee, and P. Berry (2003). Interactive Execution Monitoring of Agent Teams, *Journal of Artificial Intelligence Research*, **18**:217-261. (wilkinsetal2003.pdf)

Robotics

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Kober, J; Bagnell, D.; Peters, J. (2013). Reinforcement Learning in Robotics: A Survey, *International Journal of Robotics Research*, **32**(11), pp. 1236-1272.

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Human-Agent Collaborations

Azaria, A., A. Rochardson, and A. Rosenfeld (2016). Autonomous Agents and Human Cultures in the Trust-Revenge Game, *Journal of Autonomous Agents and Multiagent Systems*, **30**(1):486-505.

Hajaj, C., N. Hazon, and D. Sarne (2017). Enhancing Comparison Shopping Agents through Ordering and Gradual Information Disclosure, *Journal of Autonomous Agents and Multiagent Systems*, **31**:696-714.

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Simulation

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Ksontini, F., R. Mandiau, Z. Guessoum, and S. Espie (2015). Affordance-Based Agent Model for Road Traffic Simulation, *Journal of Autonomous Agents and Multiagent Systems*, **29**(5):821-849.

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4. Journals

Journal of Autonomous Agents and Multiagent Systems

Journal of Artificial Intelligent Research

IEEE Transactions on Systems, Man, and Cybernetics

Web Intelligence and Agent Systems

Applied Artificial Intelligence Journal

Artificial Intelligence

The Knowledge Engineering Review

International Journal of Human-Computer Studies

Machine Learning

Communication of ACM

AI Magazine