CSCE 990 Advanced Multiagent Systems
Seminar Assignment: List of Papers
September 6, 2016

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)

Horling, B. and V. Lesser (2005). A Survey of Multi-Agent Organizational Paradigms, *Knowledge Engineering Review*, **19**(4):281-316. (horlinglesser2005.pdf)

Huhns, M. N. and M. P. Singh (1999). A Multiagent Treatment of Agenthood, A*pplied 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)

Pynadath, D. and M. Tambe (2002). The Communicative Multiagent Team Decision Problem: Analyzing Teamwork Theories and Models, *Journal of Artificial Intelligence Research*, **1**(6):389-423. (pynadathtambe2002.pdf)

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

Platon, E., M. Mamei, N. Sabouret, S. Honiden, and H. V. D. Parunak (2006). Mechanisms for Environments in Multiagent Systems: Survey and Opportunities, **14**(1):31-47.

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

Halpern, J. Y. and K. R. O'Neill (2008). Secrecy in Multiagent Systems, *ACM Transactions on Information and System Security*, **12**(1):1-46.

Negotiations and Cooperation

Crawford, E. and M. Veloso (2007). An Experts Approach to Strategy Selection in Multiagent Meeting Scheduling, *Journal of Autonomous Agents and Multiagent Systems*, **15**:5-28. (crawfordveloso2007)

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)

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)

Jøsang, A., R. Ismail, C. Boyd (2005). A Survey of Trust and Reputation Systems for Online Service Provision, Decision Support Systems, **43**(2):618-644.

Li, C., J. A. Giampapa, and K. Sycara (2006). Bilateral Negotiation Decisions with Uncertain Dynamic Outside Options, *IEEE Transactions on Systems, Man, and Cybernetics, Part C: Special Issue on Game-Theoretic Analysis and Stochastic Simulation of Negotiation Agents*, **36**(1). (lietal2006.pdf)

Nair, R. and M. Tambe (2005). Hybrid BDI-POMDP Framework for Multiagent Teaming, *Journal of Artificial Intelligence Research*, **23**(4):367-420. (nairtambe2005.pdf)

Parsons, S., C. Sierra and N. R. Jennings (1998). Agents that Reason and Negotiate by Arguing, *Journal of Logic and Computation*, **8**(3):261-292. (parsonsetal1998.pdf)

Raja, A. and V. Lesser (2007). A Framework for Meta-Level Control in Multi-Agent Systems, to appear in *Journal of Autonomous Agents and Multiagent Systems*. (rajalesser2007.pdf)

Ros, R. and C. Sierra (2006). A Negotiation Meta Strategy Combining Trade-Off and Concession Moves, *Journal of Autonomous Agents and Multiagent Systems*, **12**:163-181. (rossierra2006.pdf)

Rosenfeld, A. I. Zuckerman, E. Segal-Halevi, O. Drein, S. Kraus (2015). NegoChat-A: a Chat-Based Negotiation Agent with Bounded Rationality, *Journal of Autonomous Agents and Multiagent Systems,* **30**(1):60-81.

Sandip, S. (2002). Believing Others: Pros and Cons, Artificial Intelligence, **142**:179-203 (sandip2002.pdf)

Soh, L.-K. and C. Tsatsoulis (2005). A Real-Time Negotiation Model and A Multi-Agent Sensor Network Implementation, *Journal of Autonomous Agents and Multiagent Systems*, **11**:215-271. (sohtsatsoulis2005.pdf)

Stone, P., M. L. Littman, S. Singh, and M. Kearns (2001). ATTac-2000: An Adaptive Autonomous Bidding Agent, *Journal of Artificial Intelligence Research*, **15**:189-206.

van der Hoek, W. and M. Wooldridge (2005). On the Logic of Cooperation and Propositional Control, *Artificial Intelligence*, 164(1-2):81-119. (vanderhoekwooldridge2005.pdf)

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)

Bowling, M. and M. Veloso (2002). Multiagent Learning Using a Variable Learning Rate, *Artificial Intelligence*, **136**:215-250. (bowlingveloso2002.pdf)

Buffet, O., A. Dutech, and F. Charpillet (2007). Shaping Multi-Agent Systems with Gradient Reinforcement Learning, to appear in *Journal of Autonomous Agents and Multiagent Systems*. (buffetetal2007.pdf)

Bulka, B., M. Gaston, and M. desJardins (2007). Local Strategy Learning in Networked Multi-Agent Team Formation, *Journal of Autonomous Agents and Multiagent Systems*, **15**:29-45. (bulkaetal2007.pdf)

Enembreck, F. and J.-P. Barthés (2005). ELA—A New Approach for Learning Agents, *Journal of Autonomous Agents and Multiagent Systems*, **10**:215-248. (enembreckbarthes2005.pdf)

Ghavamzadeh, M., S. Mahadevan, and R. Makar (2006). Hierarchical Multi-Agent Reinforcement Learning, *Journal of Autonomous Agents and Multiagent Systems*, **13**:197-229. (ghavamzadehetal2006.pdf)

Panait, L. and S. Luke (2005). Cooperative Multi-Agent Learning: The State of the Art, *Journal of Autonomous Agents and Multiagent Systems*, **11**:387-434. (panaitluke2005.pdf)

Plaza, E. and S. Ontañón (2006). Learning Collaboration Strategies for Committees of Learning Agents, *Journal of Autonomous Agents and Multiagent Systems*, **13**:429-461. (plazaontanon2006.pdf)

Stone, P., R. S. Sutton, and G. Kuhlmann (2005). Reinforcement Learning for RoboCup-Soccer Keepaway, *Adaptive Behavior*, **13**(3):165-188. (stoneetal2005.pdf)

Shoham, Y., R. Powers, and T. Grenager (2007). If Multi-Agent Learning is the Answer, What is the Question?, *Artificial Intelligence*, **171**(1):365-377.

Vidal, J. M. and E. H. Durfee (2003). Predicting the Expected Behavior of Agents that Learn about Agents: The CLRI Framework, *Autonomous Agents and Multi-Agent Systems*, **6**(1):77-107. (vidaldurfee2003.pdf)

Real-Time

Stone, P. and M. Veloso (1999). Task Decomposition, Dynamic Role Assignment, and Low-Bandwidth Communication for Real-Time Strategic Teamwork, *Artificial Intelligence*, **100**(2):241-273. (stoneveloso1999.ps)

Bazzan, A. L. C. (2005). A Distributed Approach for Coordination of Traffic Signal Agents, *Journal of Autonomous Agents and Multiagent Systems*, **10**:131-164. (bazzan2005.pdf)

Monitoring

Kaminka, G. A., D. V. Pynadath, and M. Tambe (2002). Monitoring Teams by Overhearing: A Multi-Agent Plan-Recognition Approach, *Journal of Artificial Intelligence Research*, **17**:83-135. (kaminkaetal2002.pdf)

Monticino, M., M. Acevedo, B. Callicott, T. Cogdill, and C. Lindquist (2007). Coupled Human and Natural Systems: A Multi-Agent-Based Approach, *Environmental Modelling and Software*, **22**:656-663.

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

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

Deisenroth, M.; Neumann, G; Peters, J. (2013). A Survey on Policy Search for Robotics, *Foundations and Trends in Robotics*, **21**, pp. 388-403.

Nguyen-Tuong, D.; Peters, J. (2011). Model Learning in Robotics: a Survey, *Cognitive Processing*, **12**(4), pp.319-340.

Human-Agent Collaborations

Ramchum, S. D., F. Wu, W. Jiang, J. E. Fischer, S. Reece, S. Roberts, T. Rodden, C. Greenhalgh, and N. R. Jennings (2015). Human-Agent Collaboration for Disaster Response, *Journal of Autonomous Agents and Multiagent Systems,* **30**(1):82-111.

Sklar, E. I., S. Parsons, Z. Li, J. Salvit, S. Perumal, H. Wall, and J. Mangels (2015). Evaluation of a Trust-Modulated Argumentation-Based Interactive Decision-Making Tool, *Journal of Autonomous Agents and Multiagent Systems,* **30**(1):136-173.

Sequeira, P., F. S. Melo, and A. Paiva (2015). Emergence of Emotional Appraisal Signals in Reinforcement Learning Agents, *Journal of Autonomous Agents and Multiagent Systems,* **29**(4):537-568.

Simulation

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.

Martinez-Gil, F., M. Lozano, and F. Fernandez (2015). Strategies for Simulating Pedestrian Navigation with Multiple Reinforcement Learning Agents, *Journal of Autonomous Agents and Multiagent Systems,* **29**(1):98-130.

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