Discussion Notes
Post-Competition Discussion
ART Testbed Competition at AAMAS 2006

Games with many agents
- Competitions in which the system has larger numbers of agents are necessary for reputation to play a part in strategy. How to distribute agents among participants if a system has many agents?
- Each player has many agents?
- The population will affect the outcome; results depend on the agents making up the system (Leenkiat)
- Many dummy agents?
- How to avoid collusion?
- Maybe collusion is ok? May lead to coalitions (Dong)
- Winner has highest average of all agents he owns (masters and slaves)
- Is this set of agents just one large distributed agent? (Jordi)
- Use agents from repository to increase the population? But what if they are obsolete due to testbed changes?
- Will allowing coalitions present a barrier to entry for new participants? (Leenkiat)

Changing the players in the system over the course of a game
- Participants could enter or leave, but we must ensure that each participant has equal “playing time”
- Dummy agents enter and leave.
- Vary the system, for example, by introducing a wave of nasty agents, or abruptly change in number of clients
- (Dong) dummy or participants enter and leave with same or changing expertise

Changing Parameters
- Improving expertise over time based on money invested to create opinions (Stephane)
  - Is it relevant to trust? Improving ability may mask the trust problems (Dong)
- Be sure to relate number of eras in the game to number of agents in the system
- Distribution of era expertise: ensure at least two agents who are experts so I have to choose between them (Leenkiat)
- Consider including eras with no experts
- Calculation of s needs to be better (from s* to cg); consider changing the alpha parameter (Leenkiat)
  - (Dong) Just don’t change alpha DURING a game; it’s too difficult for an agent to deal with.

Competition Organization
- Should participants be able to update agents between/during games?
• Rounds should be separated by several weeks for improvement
  • Some participants might employ a strategy of using a simple version to qualify in the preliminary rounds, then a very advanced agent for finals (Dong). Is that good or bad?
  • Use a small amount of time between rounds, but allow resubmission of agents (Stephane)

**Desired Testbed Tools/Features**

- Debugging tools
- Automatic game execution; running games from scripts
- Game analysis tools—plug-in charting tools or data-parsing tools
- Documentation: API is needed
- Thread-wait: include a “last call” before killing the thread
- Consider distributing computation among methods
- Infrastructure competition, permit participants to vote about the best proposed features

**Future of the Testbed**

- Expand problem each year to come up with new modeling
- The Testbed is important because trust is important everywhere, it covers uncertainty (Jigar)
- What is the long-term vision for the Testbed? (Jigar)
- What is the governing body?
- Advertise to a wider body (agents list, etc.) (Raj)
- Vision statement is not clear (Jigar)
- Move Yahoo group to topic-based discussion forum so it is easier to find needed information by category

**Relationship between AAMAS Trust Workshop and ART Testbed Competition**

- Need more cohesiveness between workshop and competition
  - Joint meeting? Special track?
- Run competition during workshop, post-discussion as part of workshop on second day
- Workshop discussion could focus on symbiotic relationship between theory (TRUST workshop) and application (ART) (Raj)

**Publication opportunities**

- LNAI Lecture Notes (may be too few papers to publish)
- Symposium (may be difficult for participants to travel)
- Wait until next AAMAS (conference/workshop), too long to wait
- Special issue (editor discussion, competitors share strategies)
  - How issues impact other domains
- JASSS (electronic, quick publication)
- Magazine article (AI, Internet Computing)—all finalists included as authors
- Dissemination through publication may be better than submitting class files or source code. (Dong)