

## IFAAMAS Board Elections 2018 Statement: Long Tran-Thanh

**Bio:** I am a Hungarian-Vietnamese computer scientist at the University of Southampton, UK, where I am currently a Lecturer (Assistant Professor equivalent) in Computer Science. I obtained my PhD in Computer Science from Southampton in 2012, under the supervision of Nick Jennings and Alex Rogers.

I have been doing active research in a number of key areas of AI and multi-agent systems, mainly focusing on sequential decision making/multi-armed bandits, game theory, and incentive engineering, and their applications to crowdsourcing, and smart grids/smart homes. I have published around 40 papers at top AI conferences (AAAI, AAMAS, ECAI, IJCAI, NIPS, UAI) and journals (JAAMAS, AIJ), and have received a number of prestigious awards, such as: (i) CPHC/BCS PhD Dissertation Award (best Computer Science PhD thesis in the UK) in 2012/2013 - *Honourable Mention*; (ii) ECCAI Artificial Intelligence Dissertation Award (best European PhD thesis in AI) in 2012 - *Honourable Mention*; (iii) AAAI 2012's Outstanding Paper Award - *Honourable Mention*; and (iv) ECAI 2012's Best Student Paper Award - *Runner-Up*.

**Involvement with the AAMAS community:** I have attended seven of the last 9 AAMAS conferences since 2009 and is an author/co-author in 14 AAMAS main track papers. In addition, I have been involved in the organisation (as both Co-Organiser and Co-Chair) of a number of workshops at AAMAS, such as: ADVERSE, HAIDM, MassiveMAS, OptMAS, and SecMAS. I have also been serving on program committees of major AI/ML conferences, including AAAI, AAMAS, AISTATS, EC, ICML, IJCAI, NIPS, and UAI. Finally, I am the Local Co-Chair of the 6<sup>th</sup> International Conference on Human-Agent Interactions (HAI 2018).

**Goals:** If elected, I will focus on:

**1. Promoting multi-agent theories & technologies as a next drive of the AI revolution:** Machine learning (ML) techniques, which are the key components of the latest AI revolution, cannot efficiently deal with complex systems with humans-in-the-loop, who can be malicious/strategic, or possess evolving behaviours. These limitations have been manifested in a number of recent failures such as Microsoft's Tay.ai, or the vulnerability of DNNs, just to name a few. On the other hand, agent technologies already have a plethora of solutions that can help us overcome those challenges, including game theory/mechanism design, multi-agent learning, and many more. Despite this fact, *the AAMAS community is not yet (fully) involved in the current AI revolution* (e.g., see the stagnating number of AAMAS submissions vs. the significant increase in the number of submissions to other top AI/ML conferences). Given this, *I would focus on raising awareness of our community's research to the wider audience with the aim to make agents technologies to be a future key component of the AI revolution.*

**2. Helping early career researchers in their career development:** The AAMAS community already has a number of useful events to foster the development of PhD students, such as the Doctoral Consortium at AAMAS, or the annual European Agent Summer Schools. As a board member, I would further expand these activities to help postdocs and young academics as well. In particular, I would pursue to provide a forum where early career researchers can: (i) *share their experiences* (and help each other) *in writing successful proposals* to major funding bodies (NSF/ERC); (ii) *co-create cross-topic research problems* to expand their research portfolio; and (iii) *find senior mentors* (established members of their respective fields) who can foster their future career development.

**3. Promoting AI/agent technologies for social good:** As our field is becoming more mature, there is increasing need to turn the power of AI and agent technologies to solve important societal challenges. As such, *I would pursue to foster more applied research work on AI/multi-agent systems for social good*, such as disaster response, healthcare, or wildlife protection. In particular, I aim to connect relevant charities and organisations with the ongoing research conducted in the AAMAS community. This could also help the community to shape new research directions and form new applications with high societal impact.