

Frans A. Oliehoek

Bio

Frans Oliehoek (1981) is Associate Professor in the Department of Intelligent Systems, Delft University of Technology, where he focuses on interactive learning and decision making. He received his Ph.D. in Computer Science (2010) and M.Sc. Artificial Intelligence (2005) both from the University of Amsterdam (UvA). He subsequently did postdocs at MIT (2010-2012) and Maastricht University (2012-2013), where he was appointed as a (non-permanent) Assistant Professor (2013-2014). In 2014 he moved back to UvA supported by an NWO VENI Fellowship and in parallel he took up a position as Lecturer at the University of Liverpool, where he was promoted to Senior Lecturer in 2017.

Frans' research interests lie in the intersection of AI, machine learning and game theory. His contributions are usually of an algorithmic nature with links to theory (e.g., influence-based abstraction) and applications (e.g., traffic light control). He was awarded a number of research grants, including a prestigious €1.5M ERC Starting Grant for his project "INFLUENCE: Influence-based Decision-making in Uncertain Environments".

Involvement with AAMAS Community

Due to his research focus, AAMAS has been a natural fit for Frans' research. He is co-author of 18 AAMAS papers and attended AAMAS 12x since 2006 in Hakodate, and served as PC/SPC member nearly every year. He organized several workshops on Multiagent Sequential Decision Making Under Uncertainty and Multiagent Reinforcement Learning and taught tutorials on Decision Making under Uncertainty at AAMAS and the European Agent Systems Summer School. He received the best PC-member award at AAMAS 2012. He was publications chair for AAMAS 2019.

Vision for AAMAS

Intelligent and autonomous agents are complex and multifaceted. As a result the AAMAS conference has a wide scope which makes it uniquely positioned to support some of the big questions in contemporary AI: How do we bridge the gap between machine learning and knowledge representation? How can agents learn to interact or learn via interaction? How do we go from narrow AI techniques, to general intelligence?

However, due to its multidisciplinary nature, the AAMAS community also faces a larger challenge in communicating its progress and successes than, e.g., the machine learning community. AAMAS should try to keep up, and this is possible: In recent years, we have seen a surge in interest in interactive and game-theoretic aspects within machine learning, such as GANs and adversarial attacks. The AAMAS community should play a leading role in such developments. We should think about ways (e.g., in terms of workshops, special tracks, competitions, other communications) that allows the AAMAS community to connect to trending topics in ML and AI, while keeping the diversity that has enabled the cross-fertilization between AAMAS sub-communities in the past, in order to form genuinely new ideas in the future.