Agents and Humans: Trajectories and Perspectives

Liz Sonenberg
The University of Melbourne
Victoria, 3010, Australia
l.sonenberg@unimelb.edu.au

ABSTRACT

The AAMAS conference was established in 2002 as the merger of three highly successful conferences: AA (the International Conference on Autonomous Agents), ICMAS (the International Conference on Multiagent Systems) and ATAL (the International Workshop on Agent Theories, Architectures, and Languages). In this talk I draw on my own experiences and that of others in investigating human-agent collectives. I reflect on aspects of the trajectory of research topics in the AAMAS community over the past 20+ years, and on selected challenges for human-centred AI.

KEYWORDS

Cognitive Agents, Human-centred AI, Multiagent Systems

REFERENCES

[1] Lisanne Bainbridge. 1983. Ironies of automation. *Automatica* 19, 6 (1983), 775–779.
[2] Ulle Endriss, Ann Nowé, Maria Gini, Victor Lesser, Michael Luck, Ana Paiva, and Jaime Sichman. 2022. Autonomous agents and multiagent systems: perspectives on 20 years of AAMAS. *AI Matters* 7, 3 (2022), 29–37.
[3] Mica R. Endsley. 2023. Ironies of artificial intelligence. *Ergonomics* 66, 11 (2023), 1656–1668.
[4] Peter A. Hancock. 2023. Are humans still necessary? *Ergonomics* 66, 11 (2023), 1711–1718.
[5] Ana Sofia Morais and Ralph Hertwig. 2022. Experimental Methods Are Not Neutral Tools. *APS Observer* 35 (2022). https://www.psychologicalscience.org/observer/experimental-methods
[6] Kathleen L. Mosier and Dietrich Manzey. 2019. Humans and automated decision aids: a match made in heaven? In *Human Performance in Automated and Autonomous Systems*, M. Mouloua, P. A. Hancock, and J. Ferraro (Eds.). CRC Press.
[7] Liz Sonenberg. 2023. Logics and collaboration. *Logic Journal of the IGPL* 31, 6 (2023), 1024–1046. https://doi.org/10.1093/JIGPAL/JZAD006
[8] Barry Strauch. 2018. Ironies of Automation: Still Unresolved After All These Years. *IEEE Transactions on Human-Machine Systems* 48, 5 (2018), 419–433.

BIOGRAPHY

Liz Sonenberg has been part of the AAMAS community since before the first AAMAS conference. She served on the IFMAS Board and the IFAAMAS Board (2002-2008), was co-Chair of the Local Organising Committee for the second AAMAS conference (Melbourne, 2003), Program co-Chair for the third conference (New York, 2004), and General co-Chair for the tenth conference (Taiwan, 2011).

Her research focus is on human-centred AI, especially mechanisms to support human decision making, generally involving the study of characteristics associated with so-called cognitive agents. She has enjoyed many research engagements with colleagues in Psychology, Education and Medicine, and with international collaborators.

Liz is a member of the Advisory Board of AI Magazine and of the international Standing Committee of the One Hundred Year Study on Artificial Intelligence (AI100). She was the recipient of the Distinguished Research Contribution in the Australasian AI Awards in 2020.

Liz is a Professor of Information Systems at the University of Melbourne, Australia, has served in several senior leadership positions at the University, and at present holds the University-wide role of Pro Vice Chancellor (Systems Innovation). She has held Advisory Board roles in several Commonwealth funded national research infrastructure initiatives and is currently the inaugural Chair of Australia's National Research Infrastructure Advisory Group.