

Program Schedule (As of July 13)

AAAI 2023 Summer Symposium Series

Building Connections: From Human-Human to Human-AI Collaboration

Venue: Garnet 213, Level 2 Singapore EXPO

Note: Full papers (17 mins talk + 8 mins QA); Short paper (10 mins talk + 5 mins QA).

All rooms will have a projector, screen, two microphones and a sound system. Authors should plan to bring their own laptops, chargers, HDMI dongle and slide advancer.

Monday, July 17 – Day 1

9:00 am - 9:30 am	Introduction and Ice-breaker session – Atreyi Kankanhalli Fire safety video at start
9:30 am - 10:30 am	Keynote talk – Elena Karahanna
10:30 am - 11:00 am	Break – Foyer Level 2
11:00 am - 12:45 pm	Paper Session 1 (3 Full Papers + 2 Short Papers) Chair: Ooi Wei Tsang Full papers <ul style="list-style-type: none">• Large Language Models as Commonsense Knowledge for Large-Scale Task Planning; <i>Zirui Zhao, Wee Sun Lee and David Hsu</i>• A Hierarchical Approach to Population Training for Human-AI Collaboration; <i>Yi Loo, Chen Gong and Malika Meghjani</i>• Evaluation Dimensions for Assessing Question Answer Systems for Lay Users: The Case of DiseaseGuru; <i>Prakash Chandra Sukhwai, Atreyi Kankanhalli and Vaibhav Rajan</i> Short Papers <ul style="list-style-type: none">• Learn-to-Defer SVM: A first Approach; <i>Yannis Montreuil, Wei Tsang Ooi, Lai Xing Ng and Axel Carlier</i>• Opportunities and challenges of designing assistive technologies for aphasia patients in Singapore: the case of a speech evaluation prototype; <i>Andreea I. Niculescu, Jochen Ehnes, Minghui Dong, Changhuai You and Paul Chan Yaozhu</i>
12:45 pm - 2:00 pm	Lunch - on your own
2:00 pm - 3:30 pm	Panel Discussion Topic: Building Connections: From Human-Human to Human-AI Collaboration Moderator: Malika Meghjani Panelists: David Schwartz, Lee Wee Sun, Vaibhav Rajan, Harold Soh <ul style="list-style-type: none">• challenges and opportunities in designing AI systems for teamwork• role of interdisciplinary collaborations in designing natural human-AI interactions• large language models as human models
3:30 pm - 4:00 pm	Break – Foyer Level 2

4:00 pm - 5:30 pm	<p>Paper Session 2 (3 Full Papers + 1 Short Paper)</p> <p>Chair: Abhinit Kumar Ambastha</p> <p>Full papers</p> <ul style="list-style-type: none"> • Assessment of the Crew on-Duty Status Based on the Dynamic Probabilistic Risk Platform; <i>Su Han, Fan Li, Tengfei Wang, Yanjie Zhang and Qingli Liu</i> • Federated Learning of Causal Effects on Incomplete Observational Data; <i>Thanh Vinh Vo, Young Lee and Tze-Yun Leong</i> • Taming Simulators: Challenges, Pathways and Vision for the Alignment of Large Language Models; <i>Leonard Bereska and Efstratios Gavves</i> <p>Short Paper</p> <ul style="list-style-type: none"> • Reciprocal Human Machine Learning (RHML): Human-AI Collaboration based on theories of dyadic learning; <i>David Schwartz, Dov Te'Eni and Inbal Yahav</i>
6:00 pm - 7:00 pm	Reception

Tuesday, July 18 – Day 2

9:00 am – 10:30 am	<p>Keynote talks (Virtual)</p> <p>9:00 am – 9:45 am – Matt Taylor</p> <p>9:45 am – 10:30 am - Jen Jen Chung</p>
10:30 am - 11:00 am	Break – Foyer Level 2
11:00 am - 12:45 pm	<p>Paper session 3 (3 Full Papers + 2 Short Papers)</p> <p>Chair: Vo Thanh Vinh</p> <p>Full papers</p> <ul style="list-style-type: none"> • RL-HAT: A New Framework for Understanding Human-Agent Teaming; <i>Kiana Jafari Meimandi, Matthew Bolton and Peter Beling (Virtual)</i> • COACH: Cooperative Robot Teaching; <i>Cunjun Yu, Yiqing Xu, Linfeng Li and David Hsu</i> • A Review of Emotions in Human-Conversational Agent Interaction; <i>Krutheeka Baskaran, Wei Cui and Atreyi Kankanhalli</i> <p>Short Papers</p> <ul style="list-style-type: none"> • Investigating the Role of Metacognition for Joint Decision-Making in Human-Robot Collaboration; <i>Raunak Bhattacharyya, Clara Colombatto, Stephen Fleming, Ingmar Posner and Nick Hawes</i> • Human-AI Collaborative Sub-Goal Optimization in Hierarchical Reinforcement Learning; <i>Haozhe Ma, Thanh Vinh Vo and Tze Yun Leong (Virtual)</i>
12:45 pm - 2:00 pm	Lunch - provided by AAAI - Topaz meeting rooms (opp. Garnet 217)
2:00 pm - 3:30 pm	The Other Me (TOM) Project Showcase – Talks, Demos
3:30 pm – 4:00 pm	Break – Foyer Level 2
4:00 pm – 5:30 pm	<p>Breakout session on developing a research roadmap for bridging the gap between human-AI and human-human collaboration</p> <p>Harold Soh (Moderator)</p>
6:00 pm - 7:00 pm	<p>Plenary Session – Peridot plenary room 204-206</p> <p>Volunteer Speaker from this symposium: Raunak Bhattacharyya</p>

Keynote Speaker 1: Elena Karahanna

Host: Atreyi Kankanhalli

Title: Creating Successful Human-AI Collaborations in Organizations

Abstract:

The synergistic combination of human and AI capabilities to enhance and extend human performance is becoming pervasive. Human-AI collaboration may involve cognitive, physical, sensory, and/or emotional augmentation, each with unique benefits and challenges. Building successful Human-AI collaborations in organizations requires deliberate efforts and responsible sociotechnical design of human-AI collaborations to enhance employees' workplace experience and competence, address tensions of autonomy needs and algorithmic control, cultivate talent, prevent isolation, and create organizational value. We discuss challenges in these collaborations that inform potential approaches to foster synergies and success.



Bio: Elena Karahanna is Distinguished Research Professor and the C. Herman and Mary Virginia Terry Distinguished Chair at the Terry College of Business at the University of Georgia. Her current research examines algorithmic coordination, conversational agents, and social bots. Her research has been published in top scholarly journals as well as in practitioner journals and is highly cited with over 39,000 citations as per Google Scholar.

She has served as Senior Editor at the *MIS Quarterly*, *Information Systems Research*, and the *Journal of the Association for Information Systems* and serves as Associate Editor at *Management Science* where she has received the *Inaugural Management Science Best AE Award in IS*. She has also served in conference leadership roles, including twice as program co-chair for the *International Conference on Information Systems*, twice as Doctoral Consortium co-chair for the *Americas Conference on Information Systems*, as co-chair of the *European Conference on Information Systems*, and twice as conference co-chair for the *Mediterranean Conference on Information Systems*.

Keynote Speaker 2: Matt Taylor

Host: Malika Meghjani

Title: Human and agent cooperative learning

Abstract: Reinforcement learning has had incredible successes in both controlled and applied settings. Rather than focusing on single agents, this talk will focus on the settings where agents can teach each other, agents can learn from humans, and humans can learn from agents. This talk will summarize recent work in this area and highlight multiple open questions.



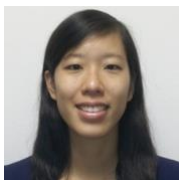
Bio: Matthew E. Taylor has worked at multiple academic institutions since his PhD in 2008. He moved to Edmonton in 2017 to lead the Borealis AI lab, the artificial intelligence arm of the Royal Bank of Canada. In 2020 he returned to academia, becoming an Associate Professor of Computing Science at the University of Alberta. He is now also a Fellow-in-Residence at Amii, where he helps bring AI into companies around the world, and also serves as the research director at AI-Redefined, a startup working on human-AI teams in multiagent settings.

Keynote Speaker 3: Jen Jen Chung

Host: Malika Meghjani

Title: Going with the flow: Robots navigating human spaces

Abstract: The tremendous potential offered by robotic automation has been evidenced by its revolution of large-scale manufacturing, mining, and agriculture. Now, with increasing social and economic pressures to transfer this success to service-focused sectors, we're seeing robots moving into our shops, our hospitals, and our homes. These human-centred spaces heighten the challenges of robotic perception for scene understanding and emphasise the need for robust planning and interaction in unstructured and dynamic environments. This talk will focus on the very literal problem of robots navigating human spaces, where robots need to understand the nuances of human interaction in crowds to enable safe, smooth and successful motion planning across the spectrum of collaborative-ambivalent-adversarial pedestrian scenarios.



Bio: Jen Jen Chung is an Associate Professor in Mechatronics within the School of Electrical Engineering and Computer Science at The University of Queensland. Her current research interests include perception, planning and learning for robotic mobile manipulation, algorithms for robot navigation through human crowds, informative path planning and adaptive sampling. Prior to working at UQ, Jen Jen was a Senior Researcher in the Autonomous Systems Lab (ASL) at ETH Zürich from 2018-2022 and was a Postdoctoral Scholar at Oregon State University researching multiagent learning methods from 2014-2017. She completed her Ph.D. on information-based exploration-exploitation strategies for autonomous soaring platforms at the Australian Centre for Field Robotics in the University of Sydney. She received her Ph.D. (2014) and B.E. (2010) from the University of Sydney.