



SIGAI Annual Report: July 1 2022 – August 30 2023

Sanmay Das (elected; [ACM SIGAI Chair](#))

Nicholas Mattei (elected; [ACM SIGAI Vice-Chair](#))

John P. Dickerson (elected; [ACM SIGAI Secretary/Treasurer](#))

Sven Koenig (elected; [ACM SIGAI Past-Chair](#))

Louise Dennis (appointed; [ACM SIGAI Conference Coordination Officer](#))

Larry Medsker (appointed; [ACM SIGAI Public Policy Officer](#))

Ziyu Yao (appointed; [ACM SIGAI Newsletter Editor-in-Chief](#))

Anuj Karpatne (appointed; [ACM SIGAI Newsletter Editor-in-Chief](#))

Alan Tsang (appointed; [ACM SIGAI Information Officer](#))

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Introduction

We are delighted to share our annual report with membership. This highlights some of the many activities we do as a SIG, and could provide some inspiration for members who wish to get more involved about the types of activities they could participate in or where they feel new initiatives might be most welcome. If you are interested in being more involved with SIGAI or have ideas for future initiatives, please reach out to any or all of the leadership team.

Health and Viability

ACM SIGAI continues to serve the community of academic educators and researchers, professional practitioners, and students through its five main concrete activities.

- **Conference sponsorship:** We sponsor or co-sponsor several important conferences. Since historically the major AI and machine learning conferences are not ACM sponsored, SIGAI has focused especially on co-sponsoring conferences at the intersection of AI and other areas, and we continue to do this very successfully, including in AI, ethics, and society, HCI, Robotics, Software Engineering, and Mechanism Design. We have successfully added major new conferences (e.g. EAAMO and AIES) to our portfolio over the last 5-6 years.
- **Awards:** We present three major awards (see below for details).

- **Communication with our membership and the broader AI community:** We pursue several communication channels, and our partnership with AIHub in the last few years has enabled better communication with our membership as well as contributing to the mission of responsible reporting on AI.
- **Support for conference attendance:** We strive to help students and those without great access to resources to attend conferences we co-sponsor or are in cooperation with. After Covid, this year has seen a major uptick in demand.
- **Promoting AI education, publications and public outreach activities:** We actively seek out ways to engage with the education community and in public outreach. For example, in the last year, we established a new collaboration with the Educational Advances in AI conference to support new and future AI educators.

Diversity, Equity, and Inclusion

We have several avenues through which we promote diversity, equity, and inclusion. Primary among these had been an effort to fund students from underrepresented groups to attend conferences through a centralized selection process where we could have sufficient numbers as well as insight into the entire pool of applicants to ensure diversity. However, following changes in ACM processes, we have had to rework our travel award scheme. This means we no longer support individual students travelling to conferences, but provide

conferences with a grant which they then allocate. We used this opportunity to relax our criteria to enable conferences to target other at-need groups beyond students if they wish. We are monitoring the allocation of these awards for EDIA purposes, and stressing the importance of considering DEI in allocation to the conferences we award grants to.

Awards

In order to promote work in AI and recognize contributions from students, researchers, and industry, SIGAI distributes three awards annually focused on each of these areas. More information on each of these awards including past winners, nomination procedures, and deadlines, are available at the SIGAI Awards Webiste: <https://sigai.acm.org/main/sigai-awards/>. In the July 1, 2022 - June 30, 2023 we distributed the following awards.

The ACM SIGAI Autonomous Agents Research Award is presented for excellence in research in the area of autonomous agents. The recipient is invited to give a talk at the International Conference on Autonomous Agents and Multiagent Systems (AAMAS). The 2023 ACM SIGAI Autonomous Agents Research Award was presented at AAMAS 2023 in London, United Kingdom to Professor Edith Elkind, Professor of Computer Science at the University of Oxford. Prof. Elkind's work provides fundamental understanding of economic paradigms in multiagent systems, with a particular focus on computational social choice and game theory. She has made important contributions to the computational analysis of cooperative games, as well as to the studies of structured domains in elections, and hedonic games. Professor Elkind supervised two PhD theses that won the Victor Lesser Distinguished Dissertation Award. Her service to the community has been extraordinary; among many other roles, she has served both as a program chair and a general chair for AAMAS, and as a program chair for IJCAI, ACM EC, WINE, and COMSOC.

ACM SIGAI also sponsors the ACM SIGAI Industry Award for Excellence in AI, an annual award which is given to an individual or team in industry who created a fielded AI application in recent years that demonstrates the power of AI techniques via a combination of the follow-

ing features: novelty of application area, novelty and technical excellence of the approach, importance of AI techniques for the approach and actual and predicted societal impact of the application. The 2022 ACM SIGAI Industry Award for Excellence in Artificial Intelligence was awarded at IJCAI 2022 Industry Day in Vienna, Austria to Sony's Gran Turismo Sophy (TM). Sony's Gran Turismo Sophy(TM) is a project developed by Sony AI, Sony Interactive Entertainment and Polyphony Digital. Gran Turismo (GT) Sophy is a collection of agents trained using reinforcement learning (RL) techniques to race in Gran Turismo, a hyper-realistic, physics-based automotive racing simulator. The GT Sophy team developed novel, state-of-the-art RL methods for this purpose. Racing against some of the world's best e-sports drivers, GT Sophy has not only performed at world-class levels, it also won a team event in October 2022 by an impressive margin. GT Sophy has demonstrated that SOTA RL can be applied effectively to continuous control problems requiring performance at the edge of human capabilities, while respecting the informal norms and protocols associated with racing. Apart from the impact on gaming, the technology offers potential societal benefits in areas such as simulation-based training and autonomous vehicle development, among others.

ACM SIGAI also sponsors, jointly with AAAI, the AAAI/ACM SIGAI Doctoral Dissertation Award to recognize and encourage superior research and writing by doctoral candidates in AI. This annual award is presented at the AAAI Conference on AI in the form of a certificate and is accompanied by the option to present the dissertation at the AAAI conference as well as to submit a six page summary to both the AAAI proceedings and the ACM SIGAI newsletter. Unfortunately, the committee has fallen behind on selecting the award winner; we expect the next award winner to be announced this Fall, with the award to be presented at AAAI 2024.

Significant papers on new areas that were published in proceedings

- A Generalized Inverted Dirichlet Predictive Model for Activity Recognition using Small Training Data by Jiaxun Guo, Manar Amayri,

- Wentao Fan and Nizar Bouguila. Best Application Paper award at IEA/AIE 2023
- Evolution of Prioritized EL Ontologie by Rim Mohamed, Zied Loukil, Faiez Gargouri and Zied Bouraoui. Best Theory Paper award at IEA/AIE 2023
- An Oriented Attention Model for Infectious Disease Cases Prediction by Peisong Zhang, Zhijin Wang, Guoqing Chao, Yaohui Huang and Jingwen Yan. Best Special Session Paper award at IEA/AIE 2023
- Multi-Granular Large Scale Group Decision-Making Method with a new Consensus Measure Based on Clustering of Alternatives in Modifiable Scenarios by Jose Ramon Trillo, Ignacio Javier Perez, Enrique Herrera-Viedma, Juan Antonio Morente-Molinera and Francisco Javier Cabrerizo. Best Technical Presentation award at IEA/AIE 2023
- Virtual Backlash: Nonverbal expression of dominance leads to less liking of dominant female versus male agents by Janet Wessler, Tanja Schneeberger, Leon Christidis and Patrick Gebhard. Best Paper award at IVA 2022
- Hetero-Rec: Optimal Deployment of Embeddings for High-Speed Recommendations by Chinmay N Mahajan, Ashwin Krishnan, Manoj Nambiar and Rekha Singhal. Best Paper award at AILMLSystems 2022
- Data efficient class incremental learning by Jayateja Kalla and Soma Biswas. Best Doctoral Symposium award at AILMLSystems 2022
- Bias, Consistency, and Partisanship in U.S. Asylum Cases: A Machine Learning Analysis of Extraneous Factors in Immigration Court Decisions by Vyoma Raman, Catherine Vera and C.J. Manna Best Paper award at EAAMO 2022
- Improving Access to Housing and Supportive Services for Runaway and Homeless Youth: Reducing Vulnerability to Human Trafficking in New York City by Yaren Bilge Kaya, Kayse Maass, Geri Dimas, Renata Konrad, Andrew Trapp and Meredith Dank Best Student paper award at EAAMO 2022
- On Meritocracy in Optimal Set Selection by Thomas Kleine Buening, Meirav Segal, Debabrota Basu, Anne-Marie George and Christos Dimitrakakis Best Student paper award at EAAMO 2022

- Dimensions of Diversity in Human Perceptions of Algorithmic Fairness by Nina Grgić-Hlača, Gabriel Lima, Adrian Weller and Elissa M. Redmiles New Horizons award at EAAMO 2022

Conference Activity

2022-23 has represented a return to normality in our conference programming after the disruptions of the past couple of years. ACM SIGAI has decided that, despite the move back towards in person conferences, our preference is that conferences provide support for remote attendance and, in particular, remote attendance for speakers. This is now communicated to conferences when we accept sponsorship and in-cooperation requests. We have seen an influx of new requests for in-cooperation agreements and are reviewing our policies around accepting these and their eligibility for travel award grants.

ACM SIGAI sponsored the following conferences in 2022 and 2023:

- EAAMO '22
- WI-IAT '22
- ASE 2022
- CSCS 2022
- HRI 2023
- IUI 2023
- AIES 2023

and it will sponsor the following conferences coming up in 2023 and 2024:

- ASE 2023
- IVA 2023
- EAAMO 2023
- K-CAP 2023
- CSCS 2023
- IUI 2024
- HRI 2024
- ASE 2024

ACM SIGAI supported the following in-cooperation events covering a wide thematic and geographical range across the international AI community:

- RecSys 2022
- BIOSTEC 2023
- ICPRAM 2023
- ICAART 2023
- FDG 2023
- IMPROVE 2023
- ICEIS 2023
- AAMAS 2023
- ICAIL 2023
- ICIKS 2023
- SIMULTECH 2023
- Delta 2023
- IEA/AIE 2023
- AICS 2023

Special Projects and Non-Conference Programs

Newsletter

In the past year, we have published four issues of AI Matters (Volume 8, Issue 3&4 in 2022, and Volume 9, Issue 1&2 in 2023). In almost all the issues, we have “Conference Reports” by Dr. Louise Dennis and “AI Events” by Dr. Dilini Samarasinghe. Excitingly, in this year, we have gotten back the “Paper Précis” column, where we invite presentations about recently awarded or award-nominated papers from AI venues. In our latest issue (Volume 9, Issue 2), we received three submissions to this column, covering topics such as agent navigation, causality, and 3D human motion modeling. This column is managed by Dr. Dongkuan Xu, a new member of the SIGAI AI Matters editor team. Dr. Xu is currently an Assistant Professor in the Computer Science department of North Carolina State University. His research focuses on “Landed Generative AI (LaGAI)”, including solving full-stack LaGAI problems ranging from theoretical optimization methods to data-centric strategies and to co-design of algorithms and hardware. Finally, AI Matters is the venue for publishing EAAI-23 Blue Sky Ideas in AI Education, reported by Guerzhoy et al.

Website and Social Media

The ACM SIGAI Twitter account (@acm_sigai) continues to be a useful avenue to communicate with our members and the wider public about AI in research and industry. The account has been helpful to disseminate information about the winners of the various awards that we support and funding opportunities that are available. AIHub remains a key partnership. In addition to sending monthly digests of AI news and information to our membership, we are sharing posts that link to their articles. We also recently had a (virtual) meeting with two key people who run the AIHub to feedback any communication support needs SIGAI might have, this also proved useful to understand how other organizations that support the AIHub are running their communications. The accounts follower count has risen slightly over the year, from 833 to 949. Over the past year, our posts were viewed an average of 2415.33 times each, an increase on last year. This is without paying for any promotional support from Twitter to boost posts, etc. The co-information officer in charge is monitoring the ongoing ups and downs in the utility of Twitter (or X as it has recently been renamed) for supporting SIGAI.

AI Education

ACM SIGAI co-funded the AAI/ACM SIGAI New and Future AI Educator Program at EAAI-23, the 13th Symposium on Educational Advances in Artificial Intelligence, collocated with AAI-23. EAAI provides a venue for researchers and educators to discuss pedagogical issues and share resources related to teaching and using AI in education across a variety of curricular levels (K-12 through post-graduate training), with an emphasis on undergraduate and graduate teaching and learning. The New and Future AI Educator Program provides a platform for new educators (early career lecturers, assistant professors, and other university or secondary school faculty) and future educators (full-time PhD candidates or postdocs at colleges and universities who intend a career in academia) to attend EAAI to actively share and discuss their ideas and visions for AI education. Specifically, the program provided partial travel support for 4 awardees to attend EAAI-23 in

Toronto, CA. Awardees presented their blue sky ideas at the symposium in February 2023, enabling discussions and providing networking opportunities for new educators. They further collaborated on an article summarizing their ideas and visions for AI education. This article is currently pending publication in the ACM SIGAI AI Matters magazine.

Public Policy Activities

Larry Medsker continues his Public Policy Officer work as a liaison with the ACM US Technology Policy Committee (USTPC). His work includes participation in writing statements and reports, serving on panels providing information to legislative groups, and assisting with the production of AI-related ACM TechBriefs (<https://www.acm.org/public-policy/techbriefs>). He plans to renew sharing of public policy news through the SIGAI blog and convey opportunities for SIGAI members to be expert resources to policymakers. His recent selection as the new Chair of USTPC will provide additional opportunities to work with SIGAI members.

Job Fair

The ninth edition of the joint AAAI/ACM SIGAI job fair ran successfully in February 2023. After two years of fully virtual format, this year the job fair brought together over 21 companies, universities, and recruiters in person during the AAAI-23 conference in Washington DC. The goal of the job fair is connecting academics in various levels to employers from industry and academia as well as showcasing successful collaborations between members of the AI community and the industry.

We continued to maintain a dedicated domain for the fair <https://aaaijobfair.com/>, and we provided a link on that site for job-seekers to submit resumes or CVs, which were distributed among participating organizations prior to the event. Over 150 participants registered and shared their CVs/resumes with the recruiters and many more attended the in-person event. The job fair ran for two and half hours with many staying longer to continue the conversations. In the beginning of the event, one representative from each organization had the opportunity to introduce the organization and its job opening(s) for about two minutes. We

asked all companies to submit a single slide along with additional flyers about available positions or short video content about their organizations. The flyers and short videos were made accessible through AAAI/SIGAI webpage prior to the event; the slides were projected in the beginning of the event. Afterwards, students and professionals looking for internships or jobs had the opportunity to meet with the representatives from recruiting organizations in an informal "meet-and-greet" atmosphere. The participating employers were both from academic organizations and industry from all over the world (e.g. USA, Germany, Japan, China, and UAE).

We hope that all participants and recruiters of this job fair were able to fully utilize the opportunities provided in this in-person event. We would like to thank AAAI, in particular Chesley Grove and Meredith Ellison, for all their help in organizing the job fair and dealing with numerous last-minute requests. We encourage the community to reach us with any comments or suggestions that can help continue or improve these series.

Key Issues

We focus here on two big questions. There is continuing uncertainty in both the world of conferences and in the world of AI today. There has clearly been a resurgence of interest in attending in-person events; how does one balance that with concerns about exclusion (especially of the global south and of those with medical vulnerabilities in the wake of a pandemic), climate change, and even attention in an era of venue proliferation? One specific issue that has come up is about incentives for attendance when conferences offer hybrid participation options. Separately, the rise of Generative AI is changing the landscape of AI. The blinding focus on this area and topic has both opportunities and risks for those associated with AI more broadly, and we must think carefully about how best to engage across all the ways in which we try to serve our mission.

