



## ACM SIGAI Activity Report

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

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

**Rosemary Paradis** (elected; [ACM SIGAI Secretary/Treasurer](#))

**Eric Eaton** (appointed; [ACM SIGAI Newsletter Editor-in-Chief](#))

**Yolanda Gil** (appointed; [ACM SIGAI Past Chair](#))

**Katherine Guo** (appointed; [ACM SIGAI Membership and Outreach Officer](#))

**Bojun Huang** (appointed; [ACM SIGAI Information Officer](#))

**Albert Jiang** (appointed; [ACM SIGAI Education Officer](#))

**Benjamin Kuipers** (appointed; [ACM SIGAI Ethics Officer](#))

**Nicholas Mattei** (appointed; [ACM SIGAI Ethics Officer](#))

**Amy McGovern** (appointed; [ACM SIGAI Newsletter Editor-in-Chief](#))

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

**Todd Neller** (appointed; [ACM SIGAI Education Activities Officer](#))

**Plamen Petrov** (appointed; [ACM SIGAI Industry Liaison Officer](#))

**Michael Rovatsos** (appointed; [ACM SIGAI Conference Coordination Officer](#))

**David Stork** (appointed; [ACM SIGAI Award Officer](#))

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### Abstract

We are happy to present the annual activity report of ACM SIGAI, covering the period from July 2016 to June 2017.

The scope of ACM SIGAI consists of the study of intelligence and its realization in computer systems (see also its website at [sigai.acm.org](http://sigai.acm.org)). This includes areas such as

autonomous agents, cognitive modeling, computer vision, constraint programming, human language technologies, intelligent user interfaces, knowledge discovery, knowledge representation and reasoning, machine learning, planning and search, problem solving and robotics.

Members of ACM SIGAI come from academia, industry and government agencies worldwide. ACM SIGAI is proud of the fact that many AI researchers in the past year received ACM honors, including becoming ACM fellows as well as receiving other awards.

ACM SIGAI is committed to increase its activities in order to support its members even

better. In order to do so, ACM SIGAI has created several new appointed officer positions, namely an industry liaison officer, an award officer and two ethics officers.

In the course of the last year, ACM SIGAI has been responsive to specific events and circumstances as well as continued to support and expand a range of regular activities.

### Responsive Initiatives in the Last Year

ACM SIGAI actively supported the founding of a new ACM SIGAI chapter in China with help from the membership and outreach officer. ACM SIGAI China held its first event, the ACM SIGAI China Symposium on New Challenges and Opportunities in the Post-Turing AI Era, as part of the ACM China Turing 50th Celebration Conference on May 12-14, 2017 in Shanghai.

ACM SIGAI held the ACM SIGAI Student Essay Contest on the Responsible Use of AI Technologies (run by one of the ethics officers), where students could win five cash prizes of US\$500 or skype conversations with five very senior AI researchers from academia or industry if their essay provided good answers to the following two questions:

- What do you see as the 1-2 most pressing ethical, social or regulatory issues with respect to AI technologies?
- What position or steps can governments, industries or organizations (including ACM SIGAI) take to address these issues or shape the discussions on them?

The winning essays will be published in the ACM SIGAI newsletter.

ACM SIGAI extended its coordination and collaboration with a variety of groups, both inside and outside of ACM:

- ACM SIGAI started to participate in the ACM US Public Policy Council (USACM). USACM addresses US public policy issues related to computing and information technology and regularly educates and informs US Congress, the US Administration and the US courts about significant developments in the computing field and how those developments affect public policy. The public policy officer, for example, facilitated talks between the leaderships of USACM and the American Association for the Advancement of Science (AAAS) on areas of potential collaboration.
- ACM SIGAI started to participate in the IEEE Global Initiative for Ethical Considerations in AI and Autonomous Systems. The purpose of this initiative is to ensure that every technologist is educated, trained and empowered to prioritize ethical considerations in the design and development of autonomous and intelligent systems.
- ACM SIGAI also provided a response to the public request for information from the US Office of Science and Technology Policy (OSTP) in 2016 on Preparing for the Future of AI, thus supporting the US government in making decisions concerning AI technologies and their applications.

In response to developments regarding international travel policies, ACM SIGAI released the following public policy statement in 2017 via an effort of the public policy officer:

“The ACM SIGAI executive committee shares the view of its parent organization that ‘the open exchange of ideas and the freedom of thought and expression are central to the aims and goals of ACM. ACM supports the statute of International Council for Science in that the free and responsible practice of science is fundamental to scientific advancement and human and environmental wellbeing. Such practice, in all its aspects, requires freedom of movement, association,

expression and communication for scientists. All individuals are entitled to participate in any ACM activity.’ SIGAI is working on policies to support inclusive participation in our AI-related activities. We encourage event organizers to share their efforts and experiences with us through our AI Matters newsletter at [aimatters@sigai.acm.org](mailto:aimatters@sigai.acm.org) and blog postings at [sigai.acm.org/aimatters/blog/](http://sigai.acm.org/aimatters/blog/).”

ACM SIGAI also actively supported the Journal of Human-Robot Interaction (JHRI) in its desire to become an ACM journal and be included in the ACM Digital Library. JHRI will become the ACM Transactions on Human-Robot Interaction in January 2018.

## Continuing Activities

### Organizing events:

ACM SIGAI organized the annual ACM SIGAI Career Network Conference (CNC), overseen by the vice chair. CNC showcases the work of early career researchers (including students) to their potential mentors and employers. Each early career researcher is mentored by a senior AI researcher, with small group mentoring sessions as well as individual advice. CNC 2016 was held at Northeastern University in Boston, Massachusetts, on October 19-20, 2016 (and ACM SIGAI gratefully acknowledges the support and hospitality of Northeastern University). 36 early career researchers presented their work via talks and posters, and two panels (on Career Options and Getting Started, featuring senior AI researchers and practitioners from academia, industry and the public sector) completed the program.

ACM SIGAI has an agreement with the Association for the Advancement of AI (AAAI) to jointly organize the annual joint job fair at the AAAI conference, where attendees can find out about job and internship opportunities from representatives from industry, universities and other organizations. This event was held at AAAI 2017 as planned.

### Supporting international conferences and other events:

ACM SIGAI processed requests for co-sponsored and in-cooperation status from 27

conferences. The conference coordination officer improved the support provided to conference organizers by contacting them personally immediately after approval, inviting them to publicize their conference via the ACM SIGAI newsletter and mailing lists, and following up with a request for a conference report after the conference, in order to publish it in the ACM SIGAI newsletter and blog.

ACM SIGAI has an agreement with AAAI to co-sponsor, jointly with AAAI, the annual joint doctoral consortium at the AAAI conference. The doctoral consortium provides an opportunity for Ph.D. students to discuss their research interests and career objectives with the other participants and a group of established AI researchers that act as their mentors.

ACM SIGAI also co-sponsored the following conferences (*future events are in italics*):

- ACM/IEEE International Conference on Human-Robot Interaction (HRI 2017)
- 22nd International Conference on Intelligent User Interfaces (IUI 2017)
- *ACM/IEEE International Conference on Human-Robot Interaction (HRI 2018)*
- *ACM/IEEE International Conference on Automated Software Engineering (ASE 2017)*
- *ACM/IEEE International Conference on Automated Software Engineering (ASE 2018)*
- *International Conference on Web Intelligence (WI 2017)*
- *International Conference on Web Intelligence (WI 2018)*
- *23rd International Conference on Intelligent User Interfaces (IUI 2018)*
- *24th International Conference on Intelligent User Interfaces (IUI 2019)*
- 16th International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2017)
- 16th International Conference on Artificial Intelligence and Law (ICAIL 2017)
- International Conference on Industrial, Engineering & Other Applications of Applied Intelligent Systems (IEA/AIE 2017)
- *14th International Conference on Informatics in Control, Automation and Robotics (ICINCO 2017)*
- *11th ACM Conference on Recommender Systems (RecSys 2017)*
- *International Conference on the Foundations of Digital Games (FDG 2017)*
- *International Joint Conference on Rules and Reasoning (RuleML+RR 2017)*
- *4th International Workshop on Sensor-based Activity Recognition and Interaction (iWOAR 2017)*
- *Data Institute San Francisco Conference (DSCO 2017)*
- *9th International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management (IC3K 2017)*
- *9th International Joint Conference on Computational Intelligence (IJCCI 2017)*
- *10th International Conference on Agents and Artificial Intelligence (ICAART 2017)*
- *7th International Conference on Pattern Recognition Applications and Methods (ICPRAM 2018)*
- *11th International Joint Conference on Biomedical Engineering Systems and Technologies (BIOSTEC 2018)*
- *31st International Conference on Industrial, Engineering & Other Applications of Applied Intelligent Systems (IEA/AIE 2018)*
- *12th ACM Conference on Recommender Systems (RecSys 2018)*
- *31th Annual ACM Symposium on User Interface Software and Technology (UIST 2018)*
- *20th International Conference on Enterprise Information Systems (ICEIS 2018)*

In addition, ACM SIGAI granted in-cooperation status to the following conferences:

- Swarm/Human Blended Intelligence Workshop (SHBI 2016)
- 6th International Conference on Pattern Recognition Applications and Methods (ICPRAM 2017)
- International Conference on Agents and Artificial Intelligence (ICAART 2017)
- International Knowledge System Conference (KMIKS 2017)

ACM SIGAI has an agreement with the International Foundation for Autonomous Agents and Multiagent Systems (IFAAMAS) to sponsor the ACM SIGAI Autonomous Agents Research Award. The ACM SIGAI Autonomous Agents Research Award is an annual award 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 2017 ACM SIGAI Autonomous Agents Research Award was presented at AAMAS 2017 to David Parkes from Harvard University for his work on a variety of topics in multi-agent systems and economics.

### **Increasing the visibility of AI research:**

ACM SIGAI actively supports the Research Highlight Track of the Communications of the ACM (CACM) by nominating publications of recent, significant and exciting AI research results that are of general interest to the computer science research community to the Research Highlight Track. This way, ACM SIGAI helps to make important AI research results visible to many computer scientists.

### **Supporting student members:**

ACM SIGAI believes that funding students is a good way to ensure vitality in the AI community and thus a good investment in the future. Consequently, it awarded a number of scholarships to students to attend conferences co-sponsored by it as well as the 50 Years of the ACM Turing Award Celebration. The amounts of the scholarships vary but are generally in the range of US\$1,000 to US\$10,000 per conference, depending on the conference size. ACM SIGAI changed the period of time before students who join ACM SIGAI can apply for financial benefits. There is now a 3-month membership requirement before students can apply for fellowships and travel support.

### **Communicating with and supporting members:**

ACM SIGAI publishes four issues of its newsletter AI Matters per year. AI Matters features articles of general interest to the AI community, from research overview articles to dissertation abstracts. The editors-in-chief instituted a number of reforms over the last year. For example, they started a number of recurring columns in an effort to focus on the needs and interests of individual populations of the membership and promote content creation for each issue. These columns are led by individual column editors, who are responsible for soliciting content or writing the column each quarter. These columns have included

- AI Interviews (with interesting people from academia, industry and government),
- AI Amusements (including AI humor, puzzles and games),
- AI Education (led by one of the education activities officers),
- AI Policy Issues (led by the public policy officer),
- AI Buzzwords (which explains new AI concepts or terms),
- AI Events (which includes conference announcements and reports),
- AI Dissertation Abstracts and
- News from AI Groups and Organizations.

To promote readership, the editors-in-chief have moved to an open-access model (where AI Matters is openly available on the ACM SIGAI website) and instituted a new AI Matters blog (at [sigai.acm.org/aimatters/blog/](http://sigai.acm.org/aimatters/blog/)) to feature timely posts and promote discussion among community members. For example, the public policy officer posts new information every two weeks in the blog to survey and report on current AI policy issues and raise awareness about the activities of other organizations that share interests with ACM SIGAI. Behind the scenes, the editors-in-chief have also revamped the editorial process and created tools to streamline the assembly of each issue.

ACM SIGAI organized or co-organized ACM webinars to inform ACM members about AI topics, such as the Town Hall on AI, Machine Learning, and More in 2016 (run by the secretary/treasurer) and the Panel and Town Hall on Big Thoughts and Big Questions about Ethics in AI (run by one of the ethics officers). The webinars were streamed live but the videos are archived at [learning.acm.org/webinar/](http://learning.acm.org/webinar/).

Additional ACM SIGAI membership benefits include reduced registration fees at many of its co-sponsored and in-cooperation conferences and access to the proceedings of many of these conferences in the ACM Digital Library.

### **Planning for the Future**

ACM SIGAI is working on increasing the communication with its current membership (for example, via social media and membership

surveys) and intensifying its activities that reach students (for example, via the student essay contest) and industry professionals (for example, via the webinars). Additional activities in this directions are currently being planned. ACM SIGAI also intends to continue expanding the number of co-sponsored and in-cooperation conferences and its efforts to influence public policy and further the discussion on the responsible use of AI technologies. Finally, it intends to reach out to more AI groups worldwide that could benefit from ACM support, such as providing financial support, making the proceedings widely accessible in the ACM Digital Library and providing speakers via the ACM Distinguished Speakers program.



To help further the ACM SIGAI's activities, you should consider becoming a SIGAI member!

For details, see <http://sigai.acm.org/>.  
The SIGAI mailing list is open to all.

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