



Welcome to AI Matters 5(3)

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Issue overview

Welcome to the third issue of the fifth volume of the AI Matters Newsletter. With this issue, we want to welcome our new SIGAI Executive Committee. Elections were completed this Spring, and we have a new leadership team in place. Sanmay Das of Washington University in St. Louis (former vice-chair) is the new chair, Nicholas Mattei of Tulane University the new vice-chair, and John Dickerson of the University of Maryland the new secretary-treasurer. Nicholas and John were formerly active as the appointed AI and Society and Labor Market officers respectively. Sven Koenig will transition into the role of past-chair, and continue to serve on the EC in that role.

The new officers want to express their sincere thanks to Sven Koenig and to Rosemary Paradis (the former secretary/treasurer) for the wealth of novel initiatives they spearheaded in the last three years and the untiring energy they brought to their roles. SIGAI is deeply indebted to them!

We would like to mention that there has been a lot of activity in the space of significant awards in AI. The inaugural SIGAI Industry Award for Excellence in Artificial Intelligence (AI) was presented at IJCAI 2019. The award went to the Real World Reinforcement Learning Team from Microsoft, for identification and development of cutting-edge research on contextual-bandit learning that led to new decision support tools that were broadly integrated into a broad range of Microsoft products. John Langford and Tyler Clintworth received the award on behalf of the Microsoft team and presented a talk on the work at IJCAI. For more on this award, please see https://sigai.acm.org/awards/industry_award.html

We also congratulate Marijn Heule, Matti Järvisalo, Florian Lonsing, Martina Seidl and Armin Biere who have been awarded the 2019 IJCAI-JAIR prize for their 2015 paper “Clause

Elimination for SAT and QSAT” (<https://jair.org/index.php/jair/article/view/10942>). This paper describes fundamental and practical results on a range of clause elimination procedures as preprocessing and simplification techniques for SAT and QBF solvers. Since its publication, the techniques described therein have been demonstrated to have profound impact on the efficiency of state-of-the-art SAT and QBF solvers. The work is elegant and extends beautifully some well-established theoretical concepts. In addition, the paper gives new emphasis and impulse to pre- and in-processing techniques - an emphasis that resonates beyond the two key problems, SAT and QBF, covered by the authors.

We would also like to note that SIGAI and AAAI will be jointly presenting a new annual award for the best doctoral dissertation in AI. The award will be presented at AAAI, and nominations for the inaugural award are due by November 15, 2019. Please see <http://sigai.acm.org/awards/nominations.html> for details and information on how to submit a nomination!

This issue is full of great new articles and stories for you! We open with the annual report of SIGAI. We then bring you a story from a new way to teach kids and families about AI: Technovation Families’ AI challenge, which brings AI into the home by educating parents and children about AI and providing an opportunity for them to prototype AI solutions to real-world problems. They are seeking new mentors for this year’s challenges!

In our regular articles, Michael Rovatsos reports on upcoming AI events and we have two submissions for AI Education. First, Michael Guerzhoy talks about building a fake news detector. Second, Marion Neumann talks about bringing AI and ML to a younger audience, much like CS for all, instead of focusing on seniors and graduate students. In the policy column, Larry Medsker summarizes recent policies covering face recognition (how much data should we record and share?), upcoming AI

regulation, and more. Our final regular column is our AI crosswords from Adi Botea. Enjoy!

We have a new regular column where we invite researchers to present latest research trends in AI. In the inaugural article of this column, Tianbao Yang describes challenges and opportunities of non-convex and constrained learning.

In our contributed articles, Shari Trein et al. describe some of the opportunities and risks across four emerging AI application areas: employment, education, public safety, and healthcare, identified in a workshop with participants experiencing a range of disabilities. Finally, this issue features the second set of winning essays from the 2018 ACM SIGAI Student Essay Contest. In addition to having their essay appear in AI Matters, the contest winners received either monetary prizes or one-on-one Skype sessions with leading AI researchers.

Special Issue: AI For Social Good

Recognizing the potential of AI in solving some of the most pressing challenges facing our society, we are excited to announce that the next Newsletter of AI Matters will be a special issue on the theme of "AI for Social Good." We solicit articles that discuss how AI applications and/or innovations have resulted in a meaningful impact on a societally relevant problem, including problems in the domains of health, agriculture, environmental sustainability, ecological forecasting, urban planning, climate science, education, social welfare and justice, ethics and privacy, and assistive technology for people with disabilities. We also encourage submissions on emerging problems where AI advances have the potential to influence a transformative change, and perspective articles that highlight the challenges faced by current standards of AI to have a societal impact and opportunities for future research in this area. More details to be coming soon on <http://sigai.acm.org/aimatters>. Please get in touch with us if you have any questions!

Submit to AI Matters!

Thanks for reading! Don't forget to send your ideas and future submissions to *AI Matters*! We're accepting articles and announcements now for the next issue. Details on the submission process are available at <http://sigai.acm.org/aimatters>.



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