

Preface

This year marked the 60th anniversary of the “Dartmouth Summer Research Project on artificial intelligence” (1956), which launched artificial intelligence (AI) as a field of research. The original goal of AI was to replicate intelligence in machines; however, as the immense magnitude and difficulty of replicating human-level general intelligence soon became clear, AI fragmented into many sub-fields studying what we now call narrow-AI applications. Although the efforts of these sub-fields brought us extremely useful tools that now pervade virtually all technologies, efforts to work toward the original goal remained few and far between. In order to stimulate a return to the original goal of AI, a new name and corresponding conference series was created: Artificial General Intelligence (AGI). First organized in 2008, we are now in the ninth year of the AGI conference series.

To mark the 60th anniversary of AI as a field, the AGI 2016 conference was held as part of the larger HLAI 2016 event (the Joint Multi-Conference on Human-Level Intelligence), which co-located AGI 2016 with three other related conferences: BICA 2016 (the Annual International Conferences on Biologically Inspired Cognitive Architectures), NeSy 2016 (the Workshop Series on Neural-Symbolic Learning and Reasoning), and AIC 2016 (the Workshop Series on Artificial Intelligence and Cognition). Moreover, AGI 2016 was held back-to-back with IJCAI 2016 (the 25th International Joint Conference on Artificial Intelligence).

This volume contains the research papers presented at AGI 2016: The 9th Conference on Artificial General Intelligence, held during July 16–19, 2016 in New York City. In total, 67 papers were submitted to the conference. After each paper was reviewed by three Program Committee members, it was decided to accept 24 long papers and two short papers (39 % acceptance) for oral presentation, as well as ten papers for poster presentation.

In addition to these contributed talks, keynote speeches were shared with the larger HLAI event, and were delivered by Stephen Grossberg (Boston University), Gary Marcus (New York University and Geometric Intelligence Inc.), John Laird (University of Michigan), and David Aha (Naval Research Laboratory, Navy Center for Applied Research in Artificial Intelligence). Finally, the AGI 2016 conference featured two workshops, with the topics “Can Deep Neural Networks Solve the Problems of Artificial General Intelligence?” and “Environments and Evaluation for AGI.”

July 2016

Bas Steunebrink
Pei Wang
Ben Goertzel

Artificial General Intelligence

9th International Conference, AGI 2016, New York, NY,

USA, July 16-19, 2016, Proceedings

Steunebrink, B.; Wang, P.; Goertzel, B. (Eds.)

2016, XI, 364 p. 55 illus., Softcover

ISBN: 978-3-319-41648-9