AI Policy: Organizations, Resources, and Recent Symposia

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Abstract

The AI Matters Policy column is a new column that is appearing twice a month in the AI Matters blog (https://sigai.acm.org/aimatters/blog/). Selected posts will be summarized in each issue of *AI Matters*.

Introduction

As I start my term as ACM SIGAI Public Policy Officer, I have a few initial goals:

- help identify external groups with common interests in AI Public Policy,
- encourage SIGAI members to partner in policy initiatives with these organizations,
- disseminate public policy ideas to the SIGAI membership through articles in the newsletter, and
- promote discussion by posting ideas in the AI Matters blog on the 1st and 15th of each month.

I welcome everyone to make blog comments so we can develop a rich knowledge base of information and ideas representing SIGAI members.

Organizations Related to AI and Policy

The results of my initial inquiries about external groups relevant to AI public policy are in the list at the end of this article. I encourage SIGAI members to contribute additional information on opportunities for us to partner with other groups. An example is work by the American Association for the Advancement of Science, particularly the Center of Science, Policy, and Society. While AAAS policy issues are usually not directly related to AI, a regular look at their Policy Alert notifications is useful for larger policy issues, and helpful to see opportunities for SIGAI to be involved in public policy events. A recent one directly related to AI was the 41st Annual AAAS Forum on Science & Technology Policy. At the panel "Best Friend or Worst Nightmare? Autonomy and AI in the Lab and in Society," AI professionals discussed the role of policy in integrating new technologies into people's lives, particularly for autonomous systems.

AAAI Fall Symposium Series

The FSS-16[1] on November 17-19, 2016 comprised six symposia, all of which are relevant to AI public policy: Accelerating Science: A Grand Challenge for AI, Artificial Intelligence for Human-Robot Interaction, Cognitive Assistance in Government and Public Sector Applications, Cross-Disciplinary Challenges for Autonomous Systems, Privacy and Language Technologies, and Shared Autonomy in Research and Practice.

At the Cognitive Assistance session, two experts on the future of technology and policy spoke about in the future of cognitive assistance in government and public sector applications. Mark Maybury, Chief Security Officer at Mitre, spoke about the unprecedented rapid changes in AI technology applications and the prospects for good and bad impacts on society. Edward Felton, Deputy U.S. CTO in the Office of the Chief Technology Officer, reviewed recent and current initiatives including the impact of AI and cognitive assistants.

Cognitive Assistance is to some extent inspired by the IBM Watson Jeopardy project and now expanding to areas such as healthcare and autonomous systems. Presentations in the different FSS-16 symposia revealed overlap in the areas of public policy and impacts on society, including the proliferation of data, and the accompanying difficulty of managing big data and protecting privacy of individuals and institutions. Most areas of AI research and its applications—importantly, machine learning, neural computing, unsupervised analytics techniques, and

[1] http://www.aaai.org/Symposia/Fall/fss16symposia

deep learning—and connections to brain science have potential impacts on individuals and society, including policy, legal, and privacy issues.

A theme at FSS-16 was human-machine relationships and the need for stakeholders to be in dialogue about legal impacts and potential legislative actions. Should the creators of autonomous systems be responsible for the actions of those systems? Could autonomous systems gain personhood and legal responsibility? Who should decide on and how should we implement ethical frameworks in autonomous systems? How do we monitor and provide input to AI-related policies in the next administration? Public policy must address the encouragement or discouragement of short-term technology development goals, the longer-term implications of autonomous systems including autonomous vehicles, and the increasing influence of AI on human activities.

Upcoming

The theme for the SIGAI Public Policy posts for March is "AI and Future Employment." We will look at potential policies today that could mitigate impacts of AI on future jobs and the economy. Policy areas include innovative education systems, ideas for alternate economic systems, and regulatory changes to promote technological innovation. The results from March will be the topic for a public policy article in the next issue of *AI Matters*.

Resources

- AAAI Symposium series: http://www.aaai.org/Symposia/symposia.php
- AAAI Conferences: http://www.aaai.org/Conferences/
- ACM: http://techpolicy.acm.org
- INNS: http://www.inns.org
- AAAS:https://www.aaas.org/program/center-science-policy-and-society-programs
- White House reports: https://www.whitehouse.gov/blog
- White House Report on the Future of AI: https://obamawhitehouse.archives.gov/blog/2016/10/12/administrations-report-future-artificial-intelligence
- Frontiers Conference: http://www.frontiersconference.org/
- Office of Science and Technology Policy: https://www.whitehouse.gov/ostp
- National Academies of Science, Engineering, and Medicine: http://www.nationalacademies.org
- Online Ethics Center for Engineering and Science: http://www.onlineethics.org
- Brain Initiative: https://www.braininitiative.nih.gov
- DC Data Science, AI, and Policy: http://www.datacommunitydc.org/data-science-dc/
- National Science Foundation: https://www.nsf.gov
- Computing Research Association: http://cra.org
- Computing Community Consortium: http://cra.org/ccc/
- Union of Concerned Scientists: http://www.ucsusa.org
- CMU Cognitive Assistance Lab: http://www.cs.cmu.edu/~NavCog/
- IBM Analytic Solution Center: https://www.ibm.com/connect/federal/us/en/federalinnovationcenters/analytics

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Larry Medsker is a Research Professor of Physics and Director of the Data Science graduate program at The George Washington University. Dr. Medsker is a former Dean of the Siena College School of Science, and a Professor in Computer Science and in Physics, where he was a co-founder of the Siena Institute for Artificial Intelligence. His research and teaching continues at GW on the nature of humans and machines and the impacts of AI on society and policy[a]. Professor Medsker's research in AI includes work on artificial neural networks and hybrid intelligent systems. He is the Public Policy Officer for the ACM SIGAI.

[a] http://www.humai.org/humai/ and http://humac-web.org/