

Al Policy Matters

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DOI: 10.1145/3478369.3478374

Abstract

Al Policy Matters is a regular column in *Al Matters* featuring summaries and commentary based on postings that appear twice a month in the *Al Matters* blog (https://sigai.acm.org/aimatters/blog/). We welcome everyone to make blog comments so we can develop a rich knowledge base of information and ideas representing the SIGAI members.

Should the government play a role in reducing algorithmic bias?

On March 12, the Center for Technology Innovation at Brookings hosted a webinar on the role of government in identifying and reducing algorithmic biases (video). Speakers discussed what is needed to prioritize fairness in machine-learning models and how to weed out artificial intelligence models that perpetuate discrimination. Questions included

How do the European Union, U.K., and U.S. differ in their approaches to bias and discrimination?

What lessons can they learn from each other?

Should approaches to AI bias be universally applied to ensure civil and human rights for protected groups?

They observed that "policymakers and researchers throughout the world are considering strategies for reducing biased decisions made by machine-learning algorithms. To date, the U.K. has been the most forward in outlining a role for government in identifying and mitigating biases and their unintended consequences, especially decisions that impact marginalized populations. In the U.S., legislators and policymakers have focused on algorithmic accountability and the explanation of models to ensure fairness in predictive decision making."

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The moderator was Alex Engler, Rubenstein Fellow, Brookings Governance Studies. The speakers and discussants were

Lara Macdonald and Ghazi Ahamat, Senior Policy Advisors, UK Centre for Data Ethics and Innovation

Nicol Turner Lee, Brookings Senior Fellow Governance Studies, and Director, Center for Technology Innovation

Adrian Weller, Programme Director for Al at the Alan Turing Institute

Algo2021 Conference

On April 29, 2021, the University College London held online The Algo2021 Conference: Ecosystems of Excellence and Trust, building upon the success of their 2020 inaugural conference. They platformed all major stakeholders – academia, civil service, and industry – by showcasing the cutting-edge developments, contemporary debates, and perspectives of major players. The 2021 conference theme reflects the desire to promote public good innovation. Sessions and topics included the following:

Machine Learning in Healthcare
Trust and the Human-on-the-Loop
Artificial Intelligence and Predictive Policing
Al and Innovation in Healthcare Tech
Al in Learning and Education Technologies
Building Communities of Excellence in Al
Human-Al and Ethics Issues.

Politico's Online Al Summit

The 2021 Summit on May 31 dissected Europe's Al legislative package, along with the impact of geopolitical tensions and tech regulations, on topics such as data and privacy concerns. The summit convened top EU and national decision makers, opinion formers, and tech industry leaders.

"The European Commission will soon introduce legislation to govern the use of AI, acting on its aim to draw up rules for the technology sector over the next five years and on its legacy as the world's leading regulator of digital privacy. At the heart of the issue is the will to balance the need for rules with the desire to boost innovation, allowing the old continent to assert its digital sovereignty. On where the needle should be, opinions are divided – and the publication of the Commission's draft proposal will not be the end of the discussion." Issues addressed are the following:

How rules may fit broader plans to build European tech platforms that compete globally with other regions

How new requirements on algorithmic transparency might be viewed by regular people What kind of implementation efforts will be required for startups, mid-size companies and big tech.

The Politico 4th edition of the AI Summit addressed important questions in panel discussions, exclusive interviews, and interactive round table discussions. Top regulators, tech leaders, startups, and civil society stakeholders examined the EU's legislative framework on AI and data flow while tackling uncomfortable questions about people's fundamental rights, misinformation, and international cooperation that will determine the future of AI in Europe and worldwide.

What exactly are Al and DS?

Maybe it's too late, but how about sharpening up the current terminology in discussions and descriptions of AI systems and products? From the news media and marketing to the intentional misinformation elements of our times, we could use some clarity, including in policymaker discussions about AI and understandings about AI in data science. John Launchbury's "A DARPA Perspective on Artificial Intelligence," DARPA, 4-7 (Feb. 2017), is a good resource. The final report of the National Security Commission on Artificial Intelligence (NSCAI) describes two waves of Al: "Al technologies and applications such as pattern recognition, machine learning, computer vision, natural language understanding, and speech recognition have evolved for many decades. In the early years of AI, the period the Defense Advanced Research Projects Agency (DARPA) describes as the 'first wave,' researchers explored many approaches, including symbolic logic, expert systems, and intelligent planning. Some of the most effective results were based on 'handcrafted knowledge' defined by humans and then used by machines to imitate the way humans reason and interact."

"Within the past 10 years, we have witnessed a 'second wave' of AI, propelled by large-scale statistical machine learning that enables engineers to create models that can be trained to specific problem domains if given exemplar data or simulated interactions. Learning from data, these systems are designed to solve specific tasks and achieve particular goals with competencies that, in some respects, parallel the cognitive processes of humans: perceiving, reasoning, learning, communicating, deciding, and acting. Today most fielded large-scale AI systems employ elements of both first- and second-wave AI approaches."

The new generation of data scientists is not always aware of the history of their craft. Insights and experience from the first wave, including issues of AI Ethics, are important for Data Science to be fully a new discipline.

Please join our discussions at the

SIGAI Policy Blog



Larry Medsker is a Research Professor at The George Washington University, where he was founding director of the Data Science graduate program. He is currently a faculty member in the

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