

Opening Statement of Research and Technology Subcommittee Chairman Mike Collins

Joint Research & Technology and Energy Subcommittee Hearing Federal Science Agencies and the Promise of AI in Driving Scientific Discoveries

February 6, 2024

Good morning. I would like to thank all our witnesses for taking the time to join us.

Today's joint subcommittee hearing will examine how we can harness artificial intelligence (AI) to drive new scientific discoveries. We will also discuss the obstacles academic researchers and start-ups face in gaining access to these AI research resources and the proper role of the federal government in ensuring they are readily accessible.

All of us have heard about the rapid pace of technological progress in Al. I have seen how applying Al to the trucking industry has profoundly improved driver productivity and efficiency.

America is a world leader in AI development. According to the Stanford University AI Index Report of 2023, private businesses have invested roughly three and a half times the amount invested by China in cutting-edge AI systems.

The U.S. is also the global leader in newly funded AI companies.

The federal government spent nearly \$3 billion in 2022 on AI research and development (R&D). The federal government is the leading source of support for basic research and areas critical to national security.

Congress, led by this Committee, passed the National Al Initiative Act in 2020. This initiative laid the groundwork for the research the National Institute of Standards and Technology (NIST) and the National Science Foundation are conducting in Al.

I am pleased to see Georgia Tech represented among the panelists as it houses three of the twenty-five NSF AI institutes in the U.S. These institutes are applying AI to real-world challenges.

Solving these challenges is limited by the high cost of compute infrastructure. It is estimated that the cost of computing has increased annually by a factor of three between 2009 and 2022.

These costs have widened the gap between Big Tech, academic AI researchers, and entrepreneurs. Facilitating public-private partnerships can help narrow this gap and efficiently maximize the development and use of responsible AI systems.

This Committee looks forward to seeing how the NAIRR pilot at the National Science Foundation progresses over the next two years. With 11 federal agencies and 25 private sector and nonprofit organizations partnering in the pilot, it looks to be off to a promising start.

At the end of the day, our adversaries are not waiting for us. The Chinese Communist Party is implementing AI industrial policy on a national scale.

It is Congress's responsibility to ensure that America maintains its leadership role in Al.

That will require the academic community, industry partners, and small businesses to all work together to shape the future of this technology. I want to again thank the witnesses for being here today and I look forward to a productive discussion.