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Joint Subcommittee Hearing:
Subcommittee on Research & Technology
Subcommittee on Energy

Federal Science Agencies and the Promise of AI in Driving Scientific Discoveries

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Thank you, Chairman Collins and Ranking Member Stevens of our Research and Technology Subcommittee, and Chairman Williams and Ranking Member Bowman of our Energy Subcommittee, for holding today's hearing. I would also like to welcome our distinguished panel of witnesses.

Today's hearing will explore the promise of artificial intelligence in supporting scientific innovation. This is a topic that the Science Committee knows well. In 2020, this Committee led the development of *the National AI Initiative Act* to support research, development, and standardization for trustworthy AI. The bill created a whole-of-government approach to fostering AI-driven innovation. And since it became law, the initiative has resulted in some truly wonderful outcomes.

Near my district, NSF and the Department of Agriculture supported the University of California, Davis, to launch an AI research institute dedicated to next-generation food systems. This institute integrates AI and bioinformatics to enable food systems that are more resilient to climate change, disease, and supply chain disruptions, healthier for our local communities, and more productive for our farmers. AI is also being applied to minimize resource consumption and waste in food systems.

One of the most interesting aspects of these AI institutes, which we authorized in *the National AI Initiative Act*, is that each of them fosters wide-reaching ecosystems around their respective topic. Not only does the UC Davis institute include partnerships with six institutions, but it supports agricultural competitions, hackathons, and internships to teach students from the surrounding area to learn about AI and robotics for farming. These competitions include participants such as Hartnell College, a small community college in my district well to the south of Davis.

Colleges like Hartnell College will play an important role in our AI ecosystem, training technical workers to use AI technology in fields like food and agriculture. However, smaller universities and community colleges face significant resource constraints and are often reliant on larger universities like UC Davis to give their students opportunities for hands-on learning. Even most research universities run into barriers with access to computing and data resources required to conduct AI research.

A major focus of this hearing will be the National AI Research Resource or NAIRR (*rhymes with "air"*). NSF launched a pilot for this program a few weeks ago. The goal of NAIRR is to democratize access to AI tools. To date, most of these resources exist in industry – and specifically, in a handful of large companies. To truly achieve the promise of AI for societal benefit – and develop effective guardrails against harm – talented and passionate researchers, startups, and students from across the nation will need access to the kind of computational and data resources that are currently available to only a few. Achieving that kind of scale will require significant federal investment.

To justify this investment, we need to both make sure our resources can go as far as possible but also make sure they are used efficiently and judiciously.

I look forward to the discussion today to learn more about the NAIRR program and how Congress can help address the resource needs of the AI community, including AI startups, large research universities, and community colleges like Hartnell.

Thank you and I yield back.