



Opening Statement of Chairman Frank Lucas

Full Committee Hearing
Artificial Intelligence: Advancing Innovation in the National Interest

June 22, 2023

Good morning, and welcome to what I anticipate will be the first of multiple hearings on artificial intelligence the Science, Space, and Technology Committee will hold this Congress.

As we all have seen, A.I. applications like ChatGPT have taken the world by storm. The rapid pace of technological progress in this field, primarily driven by American researchers, technologists, and entrepreneurs, presents a generational opportunity for Congress.

We must ensure the United States remains the leader in a technology that many experts believe is as transformative as the Internet and electricity.

The purpose of this hearing is to explore an important question—perhaps the *most* important question for Congress regarding A.I.— how can we support innovative development in A.I. so that it advances our national interest?

For starters, most of us can agree that it is in our national interest to ensure cutting-edge A.I. research continues happening here in America and is based on our democratic values. Although the United States remains the country where the most sophisticated A.I. research is happening, this gap is narrowing.

A recent study by Stanford University ranked universities by the number of A.I. papers they published. The study found that nine of the top ten universities were based in China.

Coming in at 10th was the only U.S. institution—the Massachusetts Institute of Technology. Chinese-published papers received nearly the same percentage of citations as U.S. researchers' papers, showing the gap in research quality is also diminishing.

It is in our national interest to ensure the United States has a robust innovation pipeline that supports fundamental research, all the way through to real-world applications.

The country that leads in commercial and military applications will have a decisive advantage in global economic and geopolitical competition.

The frontlines of the war in Ukraine are already demonstrating how A.I. is being applied to 21st-century warfare — autonomous drones, fake images and audio used for propaganda, and real-time satellite imagery analysis are small tastes of how A.I. is shaping today's battlefields.

However, while it is critical the U.S. support advances in A.I., these advances do not have to come at the expense of safety, security, fairness, or transparency. In fact, embedding our values in A.I.'s technological development is central to our economic competitiveness and national security.

As Members of Congress, our job is to never lose sight of the fact that our national interest ultimately lies with what is best for the American people.

The Science Committee has and can continue to play a pivotal role in the service of this mission. For starters, we can continue supporting the application of A.I. in advancing science and new economic opportunities.

A.I. is already being used to solve fundamental problems in biology, chemistry, and physics. These advances have helped us develop novel therapeutics, design advanced semiconductors, and forecast crop yields, saving countless amounts of time and money.

The National Science Foundation's A.I. Research Institutes, the Department of Energy's world-class supercomputers, and the National Institutes of Standards and Technology's Risk Management Framework and precision measurement expertise are all driving critical advances in this arena.

Pivotal to our national interest is ensuring these systems are safe and trustworthy. This Committee understood that back in 2020 when it ushered the bipartisan National Artificial Intelligence Initiative Act of 2020 into law. This legislation created a broad national strategy to accelerate investments in responsible A.I. research, development, and standards.

It facilitated new public-private partnerships to ensure the U.S. leads the world in the development and use of responsible A.I. systems.

Our committee will continue to build off of this work to establish and promote technical standards for trustworthy A.I. We are also exploring ways to mitigate risks caused by A.I. systems through research and development of technical solutions, such as using automation to detect A.I.-generated media.

As A.I. systems proliferate across the economy, we will need to develop our workforce to meet changing skills requirements. Helping U.S. workers augment their performance with A.I. will be a crucial pillar in maintaining our economic competitiveness.

While the United States currently is the global leader in A.I. research, development, and technology, our adversaries are catching up. The Chinese Communist Party is implementing A.I. industrial policy at a national scale, investing billions through state-financed investment funds, designating "national A.I. champions," and providing preferential tax treatment to grow A.I. startups.

We cannot and should not try to copy China's playbook. But we can maintain our leadership role in A.I., and we can ensure it's developed with our values of trustworthiness, fairness, and transparency.

To do so, Congress needs to make strategic investments, build our workforce, and establish proper safeguards without overregulation.

But we cannot do it alone.

We need the academic community, the private sector, and the open-source community to help us figure out how to shape the future of this technology.

I look forward to hearing the recommendations of our witnesses for how this Committee can strengthen our nation's leadership in artificial intelligence and make it beneficial and safe for all American citizens.