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Submitter Information

Name: Alper Yilmaz

General Comment

To ensure the United States maintains and extends its global leadership in artificial intelligence (AI), it is imperative to strengthen the research capacity of our universities, which are critical engines of innovation. However, the current infrastructure limitations at many academic institutions significantly constrain progress in AI research.

In my own laboratory, for example, we operate with three high-end workstations that, while capable, cannot keep pace with the rapid evolution of AI models and computational demands. The financial burden of continually upgrading hardware is unsustainable for many faculty-led labs, especially in the absence of consistent federal support. Furthermore, university buildings often lack the electrical infrastructure to support high-performance computing, with frequent power issues impeding research continuity.

While national supercomputing centers offer valuable resources, they are oversubscribed and often inaccessible due to overwhelming demand. Additionally, access to government-provided computing clusters is typically restricted to projects that have received agency-specific funding. Given that most funding programs have acceptance rates around 10%, this system unintentionally excludes the majority of researchers—up to 90%—from the infrastructure needed to contribute meaningfully to AI advancements.

To reverse this trend and re-establish universities as leaders in AI research, we must develop a national strategy that democratizes access to sustainable AI computing power. This includes:

- Expanding shared high-performance computing (HPC) infrastructure accessible to all qualified researchers, regardless of current funding status;
- Investing in the modernization of university facilities to accommodate the power and cooling requirements of advanced AI systems;
- Establishing grant mechanisms specifically aimed at supporting AI infrastructure for faculty-led labs;
- Creating incentives and partnerships to integrate academic research more deeply with national AI initiatives, ensuring that innovation is not concentrated in a few corporate entities.

Empowering the academic research community with robust infrastructure will unlock broader participation, foster innovation, and ensure that AI development in the U.S. reflects a diverse and inclusive set of values and expertise. Without such action, we risk ceding both technological leadership and ethical oversight of AI development to a small number of private sector actors.