



A Message from the Director of the National Science Foundation

This month, I have two exciting updates to share with you. In mid-July, an international research team, using data gathered by [NSF's IceCube Neutrino Observatory](#), announced the discovery of one source of cosmic neutrinos. This is another great example of multi-messenger astronomy at work. To confirm the discovery, researchers needed data from multiple instruments across the electromagnetic spectrum. These kinds of breakthroughs are possible because of the agency's long-term commitment to basic research and the steady advancements and upgrades to facilities like NSF's IceCube Observatory.

Discoveries like this one require a variety of computational capabilities. In the future, advances in artificial intelligence (AI) may help researchers manipulate data even more quickly. With an annual investment of over \$100 million in recent years, NSF has moved boldly into AI research to ensure the U.S. maintains its leadership position in this area.

Two of NSF's 10 Big Ideas have a strong AI focus: Harnessing the Data Revolution (HDR) and The Future of Work at the Human-Technology Frontier (FW-HTF). Through HDR, the NSF research community is pursuing fundamental research in data science and engineering, a national-scale approach to research data infrastructure and the development of a 21st-century, data-capable workforce. Through FW-HTF, researchers are engaging in fundamental scientific research on the interaction of humans, society and technology that will help shape the future of work. NSF will build on existing AI advances through additional investments in HDR and FW-HTF in the coming years.

Additional initiatives rounding out these efforts include an emerging collaboration with the Defense Advanced Research Projects Agency in the area of AI and machine learning, and the development of an interdisciplinary AI R&D roadmap, being led by the Computing Community Consortium (CCC) and anticipated to be available in the spring of 2019. I am also co-chair of the National Science and Technology Council Select Committee on Artificial Intelligence and look forward to working with my interagency colleagues on efforts to maintain the nation's leadership position in AI.

NSF will continue to push the limits of discovery to capitalize on AI's full potential to strengthen the economy, advance job growth and enhance the lives of all Americans.



Francis A. Cordova

Dr. France A. Córdoba
Director, National Science Foundation
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What's Next

If you didn't get a chance last month, make sure to visit NSF's [visual identity site](#) to learn more about the agency's guidelines for using its logo and other image identifiers.

July 20: Dr. France Córdoba will provide panel remarks on the importance of seeding innovation and small business at the 2018 [National Governors Association Summer Meeting](#) in Santa Fe, New Mexico.

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