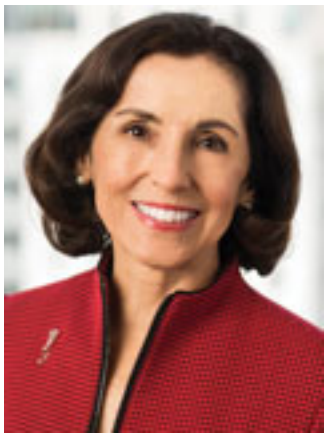
A monthly message from NSF's Director

A Message from the Director of the National Science Foundation



Earlier this month I participated in a roundtable on artificial intelligence sponsored by the Aspen Institute. This gathering of business executives, government leaders, and technology visionaries provided an opportunity to examine the implications Artificial Intelligence (AI) technologies present to society, government, and individuals, and the new leadership roles required.

The AI field gained recognition in 1950, when Alan Turing posed the question "Can machines think?" in his famous paper "Computing Machinery and Intelligence." Turing went on to suggest in that paper that humans could program a machine to learn from experience. In the intervening decades, the pursuit of artificial intelligence has benefited from advances in computing power, mathematics and an exponential expansion of data. NSF funding has helped define and mold many of the theories driving this field and it has also aided development of experimental systems and approaches integral to its advancement.

Take Google. The company is the second most valuable brand in the world as ranked by Forbes. The foundation for this success was laid by Larry Page and Sergey Brin, who, as part of an NSF-funded research project in 1995, created a way to search the Internet using web links. Just two decades later, Google employs more than 72,000 employees in 50 countries. More recently, Google's ad auction capability—a foundation of its advertisement system, which is core to its search business today—is based on advances in game theory, a field long supported by NSF.

This is just one example of how NSF-funded research ignites real change that impacts the economy. The foundation's support of fundamental research, with its many unexpected and often fruitful turns, provides the necessary backbone for potentially game-changing technologies. We've captured some of the critical industries and technological advances made possible by NSF investment in a new video. From basic research to small businesses and start-ups, NSF is essential to U.S. competitiveness.

Dr. France A. Córdova

Director, National Science Foundation
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September 11, Dr. Córdova, will deliver the 2017 Lindberg-King Lecture on the challenges of big data and large science at the NIH campus, Bethesda, MD.

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