In partnership with the University of Washington and Harvard University, Columbia’s engineering school is cohosting a new research institute that aims to develop more powerful artificial-intelligence technologies. The AI Institute for Dynamic Systems, which is funded with a $20 million grant from the National Science Foundation, will develop AI tools for use in a wide range of scientific and engineering applications, from robotics to drug discovery to the design of more powerful climate models.

Columbia’s participating researchers, led by mechanical engineer Hod Lipson and electrical engineer John Wright, are focused in part on developing AI systems that are capable of evaluating and improving their own functions. Says Lipson: “We are now faced with the ultimate challenge: can we create a system that can itself invent
solutions automatically? If we can find a way to do so, the leverage would be huge.”

The new institute has a strong educational component and will recruit and prepare recent college graduates from underrepresented groups, as well as those who are US veterans or first-generation college students, to pursue graduate work in artificial intelligence.

“AI is being integrated into every industry and every discipline,” Lipson says. “It doesn’t matter if you are interested in journalism, nursing, or nutrition. From retail to real estate, AI is going be a part of every industry’s future, and everyone needs to be prepared.”