

Does the New American AI Initiative do Enough to Spur Health Care Advances?

The administration's new American AI Initiative drew attention mostly for its cyber operations and security plans, but it also focused on healthcare and the need to infuse AI.

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The administration's new American AI Initiative, [signed](#) as an executive order in February, drew fanfare for its focus on research and development, collaboration with industry and other countries, and its assertion that a national effort is necessary to keep the United States in the artificial intelligence pole position over other countries, most notably China. Somewhat overlooked in the announcement is the initiative's call to invest in artificial intelligence for cutting-edge medical research, which has been at the crux of a lot of AI development to date.

AI comes into play in many high-profile areas, such as cybersecurity, manufacturing, workforce training and military capabilities, all of which were acknowledged in the announcement's overarching theme of security and economic competitiveness. But it also holds game-changing prospects for health care.

The Centers for Medicare and Medicaid Services, for instance, has launched an [AI Health Outcomes Challenge](#) to assess AI's transformative value, covering areas from cancer research to everyday patient care. The National Institutes of Health and the Department of Veterans Affairs have launched programs focusing on [AI-powered treatments](#). Hospitals are using AI in a variety of ways to [improve patient care](#). The Department of Health and Human Services has launched several partnerships with industry, including one to use machine learning to help treat [sepsis](#) and another to [develop new health care products](#).

The White House's [AI web page](#), which it launched about a month after announcing the initiative, offered those cases as well as others by the Food and Drug Administration and the National Institutes of Health as examples of how AI development can be harnessed for improving health care. Aside from supporting R&D, the FDA also has given priority to reviewing and approving [AI medical tools and applications](#) to get them into use more quickly.

But one thing the initiative doesn't mention is any new source of government funding, instead talking in broad terms about promoting investment in AI. "Developing America's ability to leverage AI is critical to increasing prosperity, enhancing our national and economic security, and protecting our values," according to the administration's statement. "Investment in AI is critical to creating the industries of the future like autonomous cars, industrial robots, algorithms for disease diagnosis and more."

Many current AI medical initiatives are developmental pilot programs, and while they can prove that the technologies work, they may not prove their cost-effectiveness. New technologies are the [biggest contributors](#) to rising health care costs, and hospitals are concerned about making a [business case](#) for AI investment.

A Question of Style

Government funding is one area where the U.S. approach diverges from those of some other countries. China, as with every other area of the technology, leads the pack in investing in medical AI, reportedly [putting \\$9.47 billion](#) into the country's hospital system IT, with a significant chunk of that going to AI. One example: 14 hospitals in Guangdong Province are getting [AI cameras](#) that quickly detect a major cause of blindness.

China overall is pouring [more than \\$30 billion](#) into its publicly stated goal of leading the world in AI by 2030. The city of Beijing alone is spending \$2 billion on an AI industrial park. A Chinese state has committed \$5 billion to AI development. Those funds are in the form of venture capital, but it is venture capital being put into state-owned companies.

The U.S. government, of course, isn't totally ignoring AI investment. The Defense Department has more than 600 projects within its [Joint Artificial Intelligence Center](#) , and the Defense Advanced Research Projects agency has staked \$2 billion on its [AI Next program](#). But its approach is to rely more on a mix of government seed money and private investment to spur innovation and new technologies. Rather than providing new funding, the executive order leaves it to agency chiefs to set aside R&D funds in their 2020 budget requests for AI where they see it as appropriate. It also calls for better reporting and tracking of AI R&D spending.

The U.S. approach follows a pattern similar to the National Security Agency's [Tech Transfer](#) program, which offers licensing agreements to small companies looking to work with NSA technology, with the expectation that those companies would then draw outside investment. The government's many AI-focused tech challenges offer fairly small cash prizes to participants in hopes of generating interest. The idea is that the work done in those challenges pushes technology forward — and protects the intellectual property rights of those doing the work — to a point that it will attract private investment and grow from there. AI Next expects to follow a similar path.

A Missing Ingredient?

The AI initiative is another effort to help put AI on the map, though some question whether it will be enough. Daniel Castro, director of the Center for Data Innovation and vice president of the Information Technology and Innovation Foundation, while noting that the United States still holds the lead in AI, and giving the initiative credit for prioritizing AI development, said the government needs to do more to keep pace with China's hard-charging programs.

"If the administration wants its AI initiative to be transformative, it will need to do more than reprogram existing funds for AI research, skill development and infrastructure development," Castro said in a [statement](#) in response to the initiative. He recommended that Congress authorize significant funding for research efforts, that the government exercise a light touch on regulations and export restrictions, quickly adopt AI technologies itself and retrain the workforce.

Those precepts are covered in the initiative's mission statement, except for the direct funding. The private sector's track record on AI development, as with information technology overall, is pretty strong, but whether the public-private approach will keep the U.S. ahead in the AI game with regard to health care remains to be seen.

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