First Look: Department of Energy Veterans' Health Initiative Act (HR 6398, 115th Congress)

Directs the Department of Energy to develop and leverage artificial intelligence resources to support the Department of Veterans Affairs' healthcare services.

Updated last August 3, 2018 for the 07/17/2018 version of HR 6398.

WHAT IT DOES

HR 6398 directs the Department of Energy (DOE) to develop and leverage its artificial intelligence resources to support the Department of Veterans Affairs (VA) healthcare services. Specifically, this bill stipulates that the DOE establish a research and development program to discover ways for artificial intelligence and high-performance computing to help solve the VA’s big-data challenges related to the provision of healthcare services and prediction of veterans’ health risks.

To support these ends, the DOE will establish and coordinate competitive, merit-reviewed grant opportunities for applicant initiatives developing new approaches for applying artificial intelligence techniques (e.g., machine learning, natural language processing, data analytics, etc.) to healthcare and genomic data from the VA. Within two years of this bill’s passing, the DOE should submit a report of this initiative’s progress, effectiveness, and vision to the Department of Commerce and House Committees on Veterans Affairs as well as Science, Space, and Technology. Copies of the report must also be shared with the Senate Committees on Veterans Affairs as well as Energy and Natural Resources. Funding for this initiative will be provided by the VA and will total $27 million through 2019 and 2020.

This bill also calls for the DOE to establish an Artificial Intelligence, Data Analytics, and Computational Research Pilot program. This program would involve a competitive, merit-reviewed grant process for Federal, academics, and relevant organizations to pursue the development and application of innovative uses of artificial intelligence and high-performance computing to solve complex big-data challenges. Within two years of this bill's passing, the DOE must submit a report of this initiative's discoveries, effectiveness, and opportunities for growth to the House Committee on Science, Space, and Technology as well as the Senate Committee on Energy and Natural Resources. Funding for this program will be provided by the DOE and will total $52 million through 2019 and 2020.

RELEVANT SCIENCE

Most of the progress seen in AI has been considered "narrow," having addressed specific problem domains like playing games, driving cars, or recognizing faces in images. In recent years, AI applications have surpassed human abilities in some narrow tasks, and rapid progress is expected to continue, opening new opportunities in critical areas such as health, education, energy, and the environment. This contrasts with "general" AI, which would replicate intelligent behavior equal to or surpassing human abilities across the full range of cognitive tasks. Experts involved with the National Science and Technology Council Committee on Technology believe that it will take decades before society advances to artificial "general" intelligence.

Ultimately, success in the discrete AI research domains could be combined to achieve generalized intelligence, or a fully autonomous “thinking” robot with advanced abilities such as emotional intelligence, creativity, intuition, and morality. Such autonomous agents could open new ethical and legal complications that will need to be adequately assessed and planned for. For instance, autonomous
agents or programs may, as a product of their autonomy, operate outside the expectations of their creators. In the event that the agent or program's creators have not implemented comprehensive stop gaps, the agent or program may inadvertently cause unintended harm to allies or adversaries. Whether the creators of the agents or programs are liable for any harms, and whether the harms should be given the same status of acts of war, is yet to be determined.

STATUS

Bill HR 6398 was first introduced in the House on July 17, 2018 and subsequently referred to the House Committees on Science, Space, and Technology as well as Veterans Affairs. On July 18, 2018, this bill was considered, marked-up, and ordered to be reported by voice vote.

SPONSORS

Sponsor: Representative Ralph Norman (R-SC-5)

Cosponsors:

- 14 Republicans
- 1 Democrat

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