

117TH CONGRESS
1ST SESSION

S. 1353

To promote United States values and fulfill agency missions through the use of innovative applied artificial intelligence technologies, and for other purposes.

IN THE SENATE OF THE UNITED STATES

APRIL 22, 2021

Mr. PETERS introduced the following bill; which was read twice and referred to the Committee on Homeland Security and Governmental Affairs

A BILL

To promote United States values and fulfill agency missions through the use of innovative applied artificial intelligence technologies, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Advancing American
5 AI Act”.

6 **SEC. 2. PURPOSE.**

7 The purposes of this bill are to—

8 (1) promote adoption of modernized business
9 practices and advanced technologies across the Fed-

1 eral Government that align with the values of the
2 United States, including the protection of privacy,
3 civil rights, and civil liberties;

4 (2) encourage agency artificial intelligence-re-
5 lated programs and initiatives that enhance the com-
6 petitiveness of the United States and foster an ap-
7 proach to artificial intelligence that builds on the
8 strengths of the United States in innovation and
9 entrepreneurialism;

10 (3) enhance Government venues to translate re-
11 search advances into artificial intelligence applica-
12 tions to modernize systems and assist agency leaders
13 in fulfilling their missions;

14 (4) test applied artificial intelligence to drive
15 agency productivity efficiencies in predictive supply
16 chain and logistics; and

17 (5) test applied artificial intelligence to accel-
18 erate investment return for agencies, such as for
19 portfolio management, workforce development and
20 upskilling, and for other purposes.

21 **SEC. 3. DEFINITIONS.**

22 In this Act:

23 (1) AGENCY.—The term “agency” has the
24 meaning given the term in section 3502 of title 44,
25 United States Code.

1 (2) APPROPRIATE CONGRESSIONAL COMMIT-
2 TEES.—The term “appropriate congressional com-
3 mittees” means—

4 (A) the Committee on Homeland Security
5 and Governmental Affairs of the Senate; and

6 (B) the Committee on Oversight and Re-
7 form of the House of Representatives.

8 (3) ARTIFICIAL INTELLIGENCE.—The term “ar-
9 tificial intelligence” has the meaning given the term
10 in section 238(g) of the John S. McCain National
11 Defense Authorization Act for Fiscal Year 2019 (10
12 U.S.C. 2358 note).

13 (4) DIRECTOR.—The term “Director” means
14 the Director of the Office of Management and Budg-
15 et.

16 **SEC. 4. PRINCIPLES AND POLICIES FOR USE OF ARTIFICIAL**
17 **INTELLIGENCE IN GOVERNMENT.**

18 (a) CONTINUAL REVIEW.—

19 (1) IN GENERAL.—The Director shall—

20 (A) establish mechanisms to continually re-
21 fine the guidance issued to the head of each
22 agency under section 104(a) of the AI in Gov-
23 ernment Act of 2020 (title I of division U of
24 Public Law 116–260) as best practices evolve;
25 and

1 (B) not later than 180 days after the date
2 of enactment of this Act and every year there-
3 after, brief the appropriate congressional com-
4 mittees on the mechanisms established under
5 subparagraph (A).

6 (2) CONSIDERATIONS.—In developing updates
7 to the guidance described in paragraph (1)(A), the
8 Director shall consider the input of—

9 (A) the Privacy and Civil Liberties Over-
10 sight Board;

11 (B) other governmental and nongovern-
12 mental privacy, civil rights, and civil liberties
13 experts; and

14 (C) and any other individual or entity the
15 Director determines to be appropriate.

16 (3) AMENDMENT TO AI IN GOVERNMENT ACT
17 OF 2020.—Section 104(d) of the AI in Government
18 Act of 2020 (title I of division U of Public Law
19 116–260) is amended to read as follows:

20 “(d) UPDATES.—The Director shall—

21 “(1) continually issue updates to the memo-
22 randum required under subsection (a); and

23 “(2) in any event, issue updates to the memo-
24 randum required under subsection (a)—

1 “(A) not later than 2 years after the date
2 on which the Director issues the memorandum;
3 and

4 “(B) not less frequently than annually
5 thereafter for 10 years.”.

6 (b) LEGAL AND APPROVAL PROCESSES FOR PRO-
7 CUREMENT AND USE OF AI-ENABLED SYSTEMS.—Not
8 later than 180 days after the date of enactment of this
9 Act—

10 (1) the Secretary of Homeland Security, with
11 the participation of the Chief Privacy Officer and
12 the Officer for Civil Rights and Civil Liberties of the
13 Department of Homeland Security, shall revise the
14 legal and approval processes for the procurement
15 and use of artificial intelligence-enabled systems, in-
16 cluding associated data of machine learning systems,
17 to ensure that full consideration is given to the pri-
18 vacy, civil rights, and civil liberties impacts of artifi-
19 cial intelligence-enabled systems; and

20 (2) the Chief Privacy Officer and the Officer
21 for Civil Rights and Civil Liberties of the Depart-
22 ment of Homeland Security shall report to Congress
23 on any additional staffing or funding resources that
24 may be required to carry out the requirements of
25 this subsection.

1 (c) INSPECTOR GENERAL.—Not later than 180 days
2 after the date of enactment of this Act, the Inspector Gen-
3 eral of the Department of Homeland Security shall iden-
4 tify any training needed to enable employees of the Office
5 of the Inspector General to continually advance their un-
6 derstanding of—

7 (1) rapidly evolving artificial intelligence tech-
8 nologies;

9 (2) best practices for governance, oversight, and
10 audits of the use of those technologies; and

11 (3) how the Office of the Inspector General is
12 using artificial intelligence to enhance audit and in-
13 vestigative capabilities, including actions to—

14 (A) ensure the integrity of audit and inves-
15 tigative results; and

16 (B) guard against bias in the selection and
17 conduct of audits and investigations.

18 (d) ARTIFICIAL INTELLIGENCE HYGIENE AND PRO-
19 TECTION OF PRIVACY AND GOVERNMENT INFORMA-
20 TION.—

21 (1) ESTABLISHMENT.—Not later than 1 year
22 after the date of enactment of this Act, the Adminis-
23 trator of the Office of Federal Procurement Policy
24 and the Chief Acquisition Officers Council (in this

1 subsection referred to as the “Council”) or working
2 group thereof shall develop a process to—

3 (A) ensure that contracts involving artifi-
4 cial intelligence—

5 (i) align with the guidance issued to
6 the head of each agency under section
7 104(a) of the AI in Government Act of
8 2020 (title I of division U of Public Law
9 116–260);

10 (ii) address protection of privacy; and

11 (iii) the ownership and security of
12 data and other information obtained, proc-
13 essed, stored, transmitted, or otherwise
14 handled by a contractor or subcontractor;
15 and

16 (B) address any other issue or concern de-
17 termined to be relevant by the Administrator of
18 the Office of Federal Procurement Policy and
19 the Council to ensure appropriate use and pro-
20 tection of privacy and Government data and
21 other information.

22 (2) REVIEW.—Not later than 2 years after the
23 date of enactment of this Act and every 2 years
24 thereafter, the Council shall update the process de-
25 veloped under paragraph (1).

1 (3) BRIEFING.—The Council shall brief the ap-
2 propriate congressional committees—

3 (A) not later than 90 days after the date
4 of enactment of this Act and thereafter on a
5 quarterly basis until the Council first imple-
6 ments the process developed under paragraph
7 (1); and

8 (B) annually thereafter on the implementa-
9 tion of the process developed under paragraph
10 (1).

11 (4) SUNSET.—This subsection shall cease to be
12 effective on the date that is 10 years after the date
13 of enactment of this Act.

14 **SEC. 5. AGENCY INVENTORY AND ARTIFICIAL INTEL-**
15 **LIGENCE USE CASES.**

16 (a) IN GENERAL.—Not later than 180 days after the
17 date of enactment of this Act, the Director, in consultation
18 with the Federal Chief Information Officer and the Chief
19 Information Officers Council, shall issue a memorandum
20 to the head of each agency that shall articulate the method
21 by which the agency shall make public information about
22 the use of artificial intelligence by the agency, including
23 the publication criteria, publication format, and method
24 of publication.

1 (b) INVENTORY.—Not later than 1 year after the
2 date of enactment of this Act, and annually thereafter for
3 a period of 10 years, the head of each agency shall—

4 (1) prepare an inventory of the artificial intel-
5 ligence use cases of the agency, including current
6 and planned uses, consistent with the memorandum
7 issued under subsection (a);

8 (2) identify, review, and assess existing artifi-
9 cial intelligence deployed and operating in support of
10 agency missions for any inconsistencies with the
11 guidance issued under section 104 of the AI in Gov-
12 ernment Act of 2020 (title I of division U of Public
13 Law 116–260) and any additional guidance issued
14 by the Director;

15 (3) develop and implement plans to achieve con-
16 sistency with the guidance issued under section 104
17 of the AI in Government Act of 2020 (title I of divi-
18 sion U of Public Law 116–260) and any additional
19 guidance from the Director for each AI application
20 or to retire AI applications found to be developed or
21 used in a manner that is not consistent with guid-
22 ance issued by the Director;

23 (4) share agency inventories with other agen-
24 cies, to the extent practicable and consistent with
25 applicable law and policy, including those concerning

1 protection of privacy and of sensitive law enforce-
2 ment, national security, and other protected infor-
3 mation; and

4 (5) make agency inventories available to the
5 public, in a manner determined by the Director, and
6 to the extent practicable and in accordance with ap-
7 plicable law and policy, including those concerning
8 the protection of privacy and of sensitive law en-
9 forcement, national security, and other protected in-
10 formation.

11 (c) SHARING.—The sharing of agency inventories de-
12 scribed in subsection (b)(4) may be coordinated through
13 the Chief Information Officers Council, the Chief Data Of-
14 ficers Council, the Chief Financial Officers Council, the
15 Chief Acquisition Officers Council, or other interagency
16 bodies to improve interagency coordination and informa-
17 tion sharing for common use cases.

18 (d) CENTRAL INVENTORY.—The Director shall des-
19 ignate a host entity and ensure the creation and mainte-
20 nance of an online public directory in order to—

21 (1) make agency artificial intelligence use case
22 information available to the public and those wishing
23 to do business with the Government; and

24 (2) identify common use cases across agencies.

1 **SEC. 6. RAPID PILOT, DEPLOYMENT, AND SCALE OF AP-**
2 **PLIED ARTIFICIAL INTELLIGENCE CAPABILI-**
3 **TIES TO DEMONSTRATE MODERNIZATION AC-**
4 **TIVITIES RELATED TO USE CASES.**

5 (a) IDENTIFICATION OF USE CASES.—Not later than
6 270 days after the date of enactment of this Act, the Di-
7 rector shall identify not fewer than 5 new use cases for
8 the application of cross-enterprise artificial intelligence-en-
9 abled systems to support modernization initiatives across
10 agencies, including interagency or intra-agency initiatives
11 that require linking multiple siloed internal and external
12 data sources.

13 (b) PILOT PROGRAM.—

14 (1) PURPOSES.—The purposes of the pilot pro-
15 gram under this section are—

16 (A) to enable agencies to operate cross-en-
17 terprise, coordinating between existing estab-
18 lished programs and silos to improve delivery of
19 the agency mission; and

20 (B) to demonstrate the circumstances
21 under which artificial intelligence can be used
22 to modernize or assist in modernizing legacy
23 agency systems.

24 (2) DEPLOYMENT AND PILOT.—Not later than
25 1 year after the date of enactment of this Act, the
26 Director, in coordination with the heads of relevant

1 agencies and other officials as the Director deter-
2 mines to be appropriate, shall ensure the initiation
3 of the piloting of 5 new cross-enterprise technology
4 use case applications that leverage commercially
5 available technologies and systems to demonstrate
6 scalable artificial intelligence-enabled capabilities to
7 support the use cases identified under subsection
8 (a).

9 (3) PRIORITIZATION.—In carrying out para-
10 graph (2), the Director shall prioritize modernization
11 projects that would benefit from commercially avail-
12 able privacy-preserving machine learning and artifi-
13 cial intelligence techniques, such as use of differen-
14 tial privacy, federated learning, and secure
15 multiparty computing.

16 (4) USE CASE MODERNIZATION APPLICATION
17 AREAS.—Use case modernization application areas
18 described in paragraph (2) shall include not fewer
19 than 1 from each of the following categories:

20 (A) Applied artificial intelligence to drive
21 agency productivity efficiencies in predictive
22 supply chain and logistics, such as—

23 (i) predictive food demand and opti-
24 mized supply;

1 (ii) predictive medical supplies and
2 equipment demand and optimized supply;

3 or

4 (iii) predictive logistics to accelerate
5 disaster recovery.

6 (B) Applied artificial intelligence to accel-
7 erate agency investment return and address
8 mission-oriented challenges, such as—

9 (i) applied artificial intelligence port-
10 folio management for agencies;

11 (ii) workforce development and
12 upskilling;

13 (iii) redundant and laborious analyses;

14 (iv) determining compliance with Gov-
15 ernment requirements, such as with grants
16 management; or

17 (v) outcomes measurement to measure
18 economic and social benefits.

19 (5) REQUIREMENTS.—Not later than 3 years
20 after the date of enactment of this Act, the Director,
21 in coordination with the heads of relevant agencies
22 and other officials as the Director determines to be
23 appropriate, shall establish an artificial intelligence
24 capability that—

1 (A) solves data access and usability issues
2 with automated technology and eliminate or
3 minimize the need for manual data cleansing
4 and harmonization efforts;

5 (B) continuously and automatically ingests
6 data and updates domain models in near real-
7 time to help identify new patterns and predict
8 trends to help agency personnel to make better
9 decisions and take faster actions;

10 (C) organizes data for meaningful data vis-
11 ualization and analysis so the Government has
12 predictive transparency for situational aware-
13 ness to improve use case outcomes;

14 (D) is rapidly configurable to support mul-
15 tiple applications and automatically adapts to
16 dynamic conditions and evolving use case re-
17 quirements;

18 (E) enables knowledge transfer and col-
19 laboration across agencies; and

20 (F) preserves intellectual property rights to
21 the data and output for benefit of the Federal
22 Government and agencies.

23 (6) TECHNOLOGY MODERNIZATION FUND.—

24 (A) IN GENERAL.—The activities required
25 under this section shall be an allowable use

1 under the Technology Modernization Fund es-
2 tablished under section 1078 of the National
3 Defense Authorization Act for Fiscal Year 2018
4 (40 U.S.C. 11301 note) (in this paragraph re-
5 ferred to as the “Fund”).

6 (B) PRIORITIZATION.—The Director may
7 prioritize the activities in this section for imple-
8 mentation and funding by the Fund, in which
9 case the Director is encouraged to take steps to
10 ensure that agencies are able to rapidly and ef-
11 fectively implement the pilots under this sub-
12 section, including by removing reimbursement
13 requirements for funding from the Fund.

14 (c) BRIEFING.—Not earlier than 270 days but not
15 later than 1 year after the date of enactment of this Act,
16 and annually thereafter for 3 years, the Director shall
17 brief the appropriate congressional committees on the ac-
18 tivities carried out under this section and results of those
19 activities.

20 **SEC. 7. ENABLING ENTREPRENEURS AND VALUES.**

21 (a) INNOVATIVE COMMERCIAL ITEMS.—Section 880
22 of the National Defense Authorization Act for Fiscal Year
23 2017 (41 U.S.C. 3301 note) is amended—

24 (1) in subsection (c), by striking “\$10,000,000”
25 and inserting “\$25,000,000”; and

1 (2) by amending subsection (f) to read as fol-
2 lows:

3 “(f) DEFINITIONS.—In this section—

4 “(1) the term ‘commercial product’ has the
5 meaning given the term ‘commercial item’ in section
6 2.101 of the Federal Acquisition Regulation; and

7 “(2) the term ‘innovative’ means—

8 “(A) any new technology, process, or meth-
9 od, including research and development; or

10 “(B) any new application of an existing
11 technology, process, or method.”; and

12 (3) in subsection (g), by striking “2022” and
13 insert “2027”.

14 (b) DHS OTHER TRANSACTION AUTHORITY.—Sec-
15 tion 831 of the Homeland Security Act of 2002 (6 U.S.C.
16 391) is amended—

17 (1) in subsection (a)—

18 (A) in the matter preceding paragraph (1),
19 by striking “September 30, 2017” and inserting
20 “September 30, 2024”; and

21 (B) by amending paragraph (2) to read as
22 follows:

23 “(2) PROTOTYPE PROJECTS.—The Secretary—

24 “(A) may, under the authority of para-
25 graph (1), carry out prototype projects under

1 section 2371b of title 10, United States Code;
2 and

3 “(B) in applying the authorities of such
4 section 2371b, the Secretary shall perform the
5 functions of the Secretary of Defense as pre-
6 scribed in such section.”;

7 (2) in subsection (c)(1), by striking “September
8 30, 2017” and inserting “September 30, 2024”; and

9 (3) in subsection (d), by striking “section
10 845(e)” and all that follows and inserting “section
11 2371b(e) of title 10, United States Code.”.

12 **SEC. 8. AUTHORIZATION OF APPROPRIATIONS.**

13 There is authorized to be appropriated such sums as
14 the necessary to carry out the requirements of this Act
15 and the amendments made by this Act.

○