

116TH CONGRESS
2D SESSION

S. 3771

To require the Secretary of Commerce to establish the Federal Advisory Committee on the Development and Implementation of Artificial Intelligence, and for other purposes.

IN THE SENATE OF THE UNITED STATES

MAY 20, 2020

Ms. CANTWELL (for herself, Mr. YOUNG, and Mr. MARKEY) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

A BILL

To require the Secretary of Commerce to establish the Federal Advisory Committee on the Development and Implementation of Artificial Intelligence, 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 “Fundamentally Under-
5 standing the Usability and Realistic Evolution of Artificial
6 Intelligence Act of 2020” or the “FUTURE of Artificial
7 Intelligence Act of 2020”.

1 **SEC. 2. SENSE OF CONGRESS.**

2 It is the sense of Congress that—

3 (1) understanding and preparing for the ongoing
4 development of artificial intelligence is critical to
5 the economic prosperity and social stability of the
6 United States;

7 (2) as artificial intelligence evolves, it can greatly
8 benefit society by powering the information economy,
9 fostering better informed decisions and helping
10 unlock answers to questions that, as of the date of
11 the enactment of this Act, are unanswerable;

12 (3) for the reasons set forth in paragraph (2),
13 it is beneficial to better understand artificial intelligence
14 and foster the development of artificial intelligence
15 in a manner that maximizes its benefit to society;
16 and

17 (4) it is critical that the priorities of the advisory
18 committee established under section 3(a)(1) include
19 developing guidance or recommendations—

20 (A) to promote a climate of investment and
21 innovation to ensure the global competitiveness
22 of the United States;

23 (B) to optimize the development of artificial
24 intelligence to address the potential growth,
25 restructuring, or other changes in the United
26 States workforce that result from the develop-

1 ment of artificial intelligence, with particular
2 attention to traditionally underrepresented pop-
3 ulations that may be uniquely impacted;

4 (C) to promote and support the unbiased
5 development and application of artificial intel-
6 ligence; and

7 (D) to protect the privacy rights of individ-
8 uals.

9 **SEC. 3. ESTABLISHMENT OF FEDERAL ADVISORY COM-**
10 **MITTEE ON THE DEVELOPMENT AND IMPLE-**
11 **MENTATION OF ARTIFICIAL INTELLIGENCE.**

12 (a) ESTABLISHMENT.—

13 (1) IN GENERAL.—The Secretary of Commerce
14 shall establish a Federal advisory committee to ad-
15 vise the Secretary on matters relating to the devel-
16 opment of artificial intelligence.

17 (2) DESIGNATION.—The Federal advisory com-
18 mittee established under paragraph (1) shall be
19 known as the “Federal Advisory Committee on the
20 Development and Implementation of Artificial Intel-
21 ligence” (in this section referred to as the “Advisory
22 Committee”).

23 (b) PURPOSES OF THE ADVISORY COMMITTEE.—

24 (1) ADVICE.—The Advisory Committee shall
25 provide advice to the Secretary on matters relating

1 to the development and use of artificial general intel-
2 ligence and narrow artificial intelligence, including
3 on the following as they relate to artificial intel-
4 ligence:

5 (A) The competitiveness of the United
6 States, including matters relating to the pro-
7 motion of public and private sector investment
8 and innovation into the development of artificial
9 intelligence.

10 (B) Workforce, including matters relating
11 to the potential for using artificial intelligence
12 for rapid retraining of workers, due to the pos-
13 sible effect of technological displacement and to
14 increase the labor force participation of tradi-
15 tionally underrepresented populations, including
16 minorities, low-income populations, and persons
17 with disabilities.

18 (C) Education, including matters relating
19 to science, technology, engineering, and mathe-
20 matics education to prepare the United States
21 workforce as the needs of employers change.

22 (D) Ethics training and development for
23 individuals, including both private and govern-
24 ment technologists, working on and using artifi-
25 cial intelligence.

1 (E) Matters relating to open sharing of
2 data and the open sharing of research on artifi-
3 cial intelligence.

4 (F) International cooperation and competi-
5 tiveness, including matters relating to the com-
6 petitive international landscape for artificial in-
7 telligence-related industries.

8 (G) Accountability and legal rights, includ-
9 ing matters relating to the responsibility for
10 any violations of laws by an artificial intel-
11 ligence system and the compatibility of inter-
12 national regulations.

13 (H) Matters relating to machine learning
14 bias through core cultural and societal norms.

15 (I) Matters relating to how artificial intel-
16 ligence can serve or enhance opportunities in
17 rural communities.

18 (J) Government efficiency, including mat-
19 ters relating to how to promote cost saving and
20 streamline operations.

21 (K) Matters relating to individual civil
22 rights, including an assessment regarding how
23 rights are or will be affected by the use of arti-
24 ficial intelligence technology and whether such

1 uses should be subject to additional controls,
2 oversight, or limitations.

3 (L) Matters relating to urbanization and
4 the development of smart cities.

5 (2) STUDY.—The Advisory Committee shall
6 study and assess the following:

7 (A) How the term “artificial intelligence”
8 should be defined for purposes of this section
9 and how the relevant scope of the Advisory
10 Committee should be defined, including how
11 such definitions relate to artificial systems and
12 both narrow and general forms of artificial in-
13 telligence. In carrying out this subparagraph,
14 the Advisory Committee shall consider the fol-
15 lowing:

16 “(1) The term ‘artificial intelligence’ includes
17 the following:

18 “(A) Any artificial systems that perform
19 tasks under varying and unpredictable cir-
20 cumstances, without significant human over-
21 sight, or that can learn from their experience
22 and improve their performance. Such systems
23 may be developed in computer software, phys-
24 ical hardware, or other contexts not yet con-
25 templated. They may solve tasks requiring

1 human-like perception, cognition, planning,
2 learning, communication, or physical action. In
3 general, the more human-like the system within
4 the context of its tasks, the more it can be said
5 to use artificial intelligence.

6 “(B) Systems that think like humans, such
7 as cognitive architectures and neural networks.

8 “(C) Systems that act like humans, such
9 as systems that can pass the Turing test or
10 other comparable test via natural language
11 processing, knowledge representation, auto-
12 mated reasoning, and learning.

13 “(D) A set of techniques, including ma-
14 chine learning, that seek to approximate some
15 cognitive task.

16 “(E) Systems that act rationally, such as
17 intelligent software agents and embodied robots
18 that achieve goals via perception, planning, rea-
19 soning, learning, communicating, decision-
20 making, and acting.

21 “(2) The term ‘artificial general intelligence’
22 means a notional future artificial intelligence system
23 that exhibits apparently intelligent behavior at least
24 as advanced as a person across the range of cog-
25 nitive, emotional, and social behaviors.

1 “(3) The term ‘narrow artificial intelligence’
2 means an artificial intelligence system that address-
3 es specific application areas such as playing stra-
4 tegic games, language translation, self-driving vehi-
5 cles, and facial or other image recognition.”.

6 (B) How to create a climate for public and
7 private sector investment and innovation in ar-
8 tificial intelligence.

9 (C) The possible benefits and effects that
10 the development of artificial intelligence may
11 have on the economy, workforce, and competi-
12 tiveness of the United States.

13 (D) Whether and how networked, auto-
14 mated, artificial intelligence applications and
15 robotic devices will displace or create jobs and
16 how any job-related gains relating to artificial
17 intelligence can be maximized.

18 (E) How bias can be identified and elimi-
19 nated in the development of artificial intel-
20 ligence and in the algorithms that support
21 them, including with respect to the following:

22 (i) The selection and processing of
23 data used to train artificial intelligence.

24 (ii) Diversity in the development of
25 artificial intelligence.

1 (iii) The ways and places the systems
2 are deployed and the potential harmful
3 outcomes.

4 (F) Whether and how to incorporate eth-
5 ical standards in the development and imple-
6 mentation of artificial intelligence.

7 (G) How the Federal Government can en-
8 courage technological progress in implementa-
9 tion of artificial intelligence that benefits the
10 full spectrum of social and economic classes.

11 (H) How the privacy rights of individuals
12 are or will be affected by technological innova-
13 tion relating to artificial intelligence.

14 (I) Whether technological advancements in
15 artificial intelligence have or will outpace the
16 legal and regulatory regimes implemented to
17 protect consumers.

18 (J) How existing laws, including those con-
19 cerning data access and privacy, should be mod-
20 ernized to enable the potential of artificial intel-
21 ligence.

22 (K) How the Federal Government utilizes
23 artificial intelligence to handle large or complex
24 data sets.

1 (L) How ongoing dialogues and consulta-
2 tions with multi-stakeholder groups can maxi-
3 mize the potential of artificial intelligence and
4 further development of artificial intelligence
5 technologies that can benefit everyone inclu-
6 sively.

7 (M) How the development of artificial in-
8 telligence can affect cost savings and streamline
9 operations in various areas of government oper-
10 ations, including health care, cybersecurity, in-
11 frastructure, and disaster recovery.

12 (N) Such other matters as the Advisory
13 Committee considers appropriate.

14 (3) REPORTS AND RECOMMENDATIONS.—

15 (A) REPORT BY ADVISORY COMMITTEE.—
16 Not later than 540 days after the date of the
17 enactment of this Act, the Advisory Committee
18 shall submit to the Secretary and to Congress
19 a report on the findings of the Advisory Com-
20 mittee and such recommendations as the Advi-
21 sory Committee may have for administrative or
22 legislative action relating to artificial intel-
23 ligence.

24 (B) RECOMMENDATIONS OF SECRETARY.—
25 Not later than 90 days after receiving the re-

1 port submitted under subparagraph (A), the
2 Secretary shall review the report and submit to
3 Congress such recommendations as the Sec-
4 retary may have with respect to the matters
5 contained in the report submitted under sub-
6 paragraph (A).

7 (c) MEMBERSHIP.—

8 (1) VOTING MEMBERS.—

9 (A) IN GENERAL.—The Advisory Com-
10 mittee shall be composed of 19 voting members
11 who shall be appointed by the Secretary, with
12 advisement from the Chair and Ranking Mem-
13 ber of the Committee on Commerce, Science,
14 and Transportation of the Senate and the Chair
15 and Ranking Member of the Committee on En-
16 ergy and Commerce of the House of Represent-
17 atives, for purposes of the Advisory Committee
18 from among individuals with expertise in mat-
19 ters relating to workforce development, ethics,
20 privacy, artificial intelligence, or computer
21 science.

22 (B) REPRESENTATION.—In carrying out
23 subparagraph (A), the Secretary shall ensure
24 that voting members are appointed as follows:

1 (i) Five members from the academic
2 or research community.

3 (ii) Six members from private indus-
4 try, at least one of whom shall be from a
5 small business concern.

6 (iii) Six members from civil society, at
7 least two of whom shall be from groups
8 that advocate for civil liberties or civil
9 rights.

10 (iv) Two members from labor organi-
11 zations or groups, including those that rep-
12 resent the unique interests of traditionally
13 underrepresented populations.

14 (C) GEOGRAPHICAL DIVERSITY.—In car-
15 rying out subparagraph (A), the Secretary shall
16 ensure that the voting members of the Advisory
17 Committee come from diverse geographical loca-
18 tions within the United States.

19 (2) NONVOTING MEMBERS.—The Advisory
20 Committee shall also be composed of such nonvoting
21 members as the Secretary considers appropriate, ex-
22 cept that the Secretary shall appoint at least one
23 such member from each of the following:

24 (A) The Department of Education.

25 (B) The Department of Justice.

1 (C) The Department of Labor.

2 (D) The Department of Transportation.

3 (E) The Department of Homeland Secu-
4 rity.

5 (F) The Federal Trade Commission.

6 (G) The National Institute of Standards
7 and Technology.

8 (H) The National Science Foundation.

9 (I) The National Science and Technology
10 Council.

11 (J) The intelligence community (as defined
12 in section 3 of the National Security Act of
13 1947 (50 U.S.C. 3003)).

14 (K) The Privacy and Civil Liberties Over-
15 sight Board.

16 (L) Such other nonvoting members as the
17 voting members of the Advisory Committee con-
18 sider appropriate.

19 (3) CHAIRPERSON.—The Secretary shall ap-
20 point a chairperson for the Advisory Committee
21 from among the members appointed under para-
22 graph (1).

23 (d) MEETINGS.—The Advisory Committee shall
24 meet—

1 (1) in person no less frequently than twice each
2 year; and

3 (2) via telepresence no less frequently than once
4 every 2 months.

5 (e) SUBCOMMITTEE ON ARTIFICIAL INTELLIGENCE
6 AND LAW ENFORCEMENT AND SECURITY.—

7 (1) ESTABLISHMENT.—The chairperson of the
8 Advisory Committee shall establish a subcommittee
9 on matters relating to the development of artificial
10 intelligence relating to law enforcement and security
11 matters.

12 (2) ADVICE.—The subcommittee shall provide
13 advice to the Secretary on matters relating to the
14 development of artificial intelligence relating to law
15 enforcement and security matters, including advice
16 on the following:

17 (A) Bias, including whether the use of fa-
18 cial recognition by government authorities, in-
19 cluding law enforcement agencies, is taking into
20 account ethical considerations and addressing
21 whether such use should be subject to addi-
22 tional oversight, controls, and limitations.

23 (B) Security of data, including law en-
24 forcement's access to data and the security pa-
25 rameters for that data.

1 (C) Adoptability, including methods to
2 allow the United States Government and indus-
3 try to take advantage of artificial intelligence
4 technologies such as facial recognition tech-
5 nology while at the same time ensuring the po-
6 tential abuse of such technologies is sufficiently
7 mitigated.

8 (D) Legal standards, including whether
9 technological advancements in artificial intel-
10 ligence have or will outpace the legal and regu-
11 latory regimes implemented to protect con-
12 sumers, including the tools, training, and re-
13 sources that could be used by government, in-
14 cluding law enforcement agencies, to adapt to
15 the use of artificial intelligence technologies in-
16 cluding facial recognition consistent with the
17 privacy rights and civil liberties issues raised by
18 the use of these technologies.

19 (3) MEMBERSHIP.—The subcommittee shall be
20 composed of 9 members selected by the chairperson
21 as follows:

22 (A) Three members from the law enforce-
23 ment community.

24 (B) Two members from groups that advo-
25 cate for civil liberties or civil rights.

1 (C) Two members from private industry.

2 (D) Two members from the private secu-
3 rity community.

4 (f) POWERS.—In order to carry out its duties under
5 subsection (b), the Advisory Committee may—

6 (1) hold such hearings, sit and act at such
7 times and places, take such testimony, and receive
8 such evidence as the Advisory Committee considers
9 appropriate;

10 (2) submit to Congress such recommendations
11 as the Advisory Committee considers appropriate;

12 (3) submit to Federal agencies such rec-
13 ommendations as the Advisory Committee considers
14 appropriate;

15 (4) issue reports, guidelines, and memoranda;

16 (5) hold or host conferences and symposia;

17 (6) enter into cooperative agreements with
18 third-party experts to obtain relevant advice or ex-
19 pertise, and oversee staff;

20 (7) establish subcommittees; and

21 (8) establish rules of procedure.

22 (g) TRAVEL EXPENSES.—The members of the Advi-
23 sory Committee shall be allowed travel expenses, including
24 per diem in lieu of subsistence, at rates authorized for em-
25 ployees of agencies under subchapter I of chapter 57 of

1 title 5, United States Code, while away from their homes
2 or regular places of business in the performance of services
3 for the Advisory Committee.

4 (h) FUNDING.—

5 (1) IN GENERAL.—Except as provided in para-
6 graph (2), amounts to carry out this section shall be
7 derived from amounts appropriated or otherwise
8 made available to the Secretary.

9 (2) DONATIONS.—

10 (A) AUTHORIZATION.—The Advisory Com-
11 mittee may solicit and accept donations from
12 private persons and non-Federal entities to
13 carry out this section.

14 (B) LIMITATION.—Of the amounts ex-
15 pended by the Advisory Committee in a fiscal
16 year to carry out this section, not more than
17 half may be derived from amounts received
18 under subparagraph (A).

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