Cantwell 1

Maria Cantwell

AMENDMENT NO._____   Calendar No._____

Purpose: To improve the bill.

IN THE SENATE OF THE UNITED STATES—116th Cong., 2d Sess.

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.

Referred to the Committee on _____ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT intended to be proposed by Ms. CANTWELL

Viz:

1   Beginning on page 2, strike line 1 and all that follows

2   through page 17, line 18, and insert the following:

3   **SEC. 2. SENSE OF CONGRESS.**

4   It is the sense of Congress that—

5   (1) understanding and preparing for the ongo-

6   ing development of artificial intelligence is critical to

7   the economic prosperity and social stability of the

8   United States;

9   (2) as artificial intelligence evolves, it can great-

10   ly benefit society by powering the information econ-

11   omy, fostering better informed decisions and finding

1 solutions to many of the major challenges that are

2 faced by the United States;

3   (3) for the reasons set forth in paragraph (2),

4 it is beneficial to better understand artificial intel-

5 ligence and foster the development of artificial intel-

6 ligence in a manner that maximizes its benefit to so-

7 ciety; and

8   (4) it is critical that the priorities of the advi-

9 sory committee established under section 3(a)(1) in-

10 clude developing guidance or recommendations—

11   (A) to promote a climate of investment and

12 innovation to ensure the global competitiveness

13 of the United States;

14   (B) to optimize the development of artifi-

15 cial intelligence to address the potential growth,

16 restructuring, or other changes in the United

17 States workforce that result from the develop-

18 ment of artificial intelligence, with particular

19 attention to traditionally underrepresented pop-

20 ulations that may be uniquely impacted;

21   (C) to promote and support the develop-

22 ment of trustworthy artificial intelligence and

23 mechanisms for identifying and mitigating bias

24 when and where appropriate; and

1   (D) to protect the privacy rights of individ-

2   uals.

3 SEC. 3. ESTABLISHMENT OF FEDERAL ADVISORY COM-

4   MITTEE ON THE DEVELOPMENT AND IMPLE-

5   MENTATION OF ARTIFICIAL INTELLIGENCE.

6   (a) ESTABLISHMENT.—

7   (1) IN GENERAL.—The Secretary of Commerce

8   shall establish a Federal advisory committee to ad-

9   vise the Secretary on matters relating to the devel-

10   opment of artificial intelligence.

11   (2) DESIGNATION.—The Federal advisory com-

12   mittee established under paragraph (1) shall be

13   known as the "Federal Advisory Committee on the

14   Development and Implementation of Artificial Intel-

15   ligence" (in this section referred to as the "Advisory

16   Committee").

17   (b) PURPOSES OF THE ADVISORY COMMITTEE.—

18   (1) ADVICE.—The Advisory Committee shall

19   provide advice to the Secretary on matters relating

20   to the development and use of artificial general intel-

21   ligence and narrow artificial intelligence, including

22   on the following as they relate to artificial intel-

23   ligence:

24   (A) The competitiveness of the United

25   States, including matters relating to the pro-

4

1   motion of public and private sector investment

2   and innovation into the development of artificial

3   intelligence.

4   (B) Workforce, including matters relating

5   to the potential for using artificial intelligence

6   for rapid retraining of workers, due to the pos-

7   sible effect of technological displacement and to

8   increase the labor force participation of tradi-

9   tionally underrepresented populations, including

10   minorities, low-income populations, and persons

11   with disabilities.

12   (C) Education, including matters relating

13   to science, technology, engineering, and mathe-

14   matics education to prepare the United States

15   workforce as the needs of employers change.

16   (D) Ethics training and development for

17   individuals, including both private and govern-

18   ment technologists, working on and using artifi-

19   cial intelligence.

20   (E) Matters relating to open sharing of

21   data and the open sharing of research on artifi-

22   cial intelligence.

23   (F) International cooperation and competi-

24   tiveness, including matters relating to the com-

25   petitive international landscape for artificial in-

telligence-related industries and the compatibility of international regulations.

(G) Accountability and legal rights, including matters relating to oversight of artificial intelligence systems using regulatory and non-regulatory approaches, the responsibility for any violations of existing laws by an artificial intelligence system, and ways to balance advancing innovation while protecting individuals rights.

(H) Matters relating to how artificial intelligence can serve or enhance opportunities in rural and underserved communities.

(I) Government efficiency, including matters relating to how to promote cost saving and streamline operations.

(J) Matters relating to individual civil rights, including the applicability of existing laws and regulations, an assessment regarding how such rights are or will be affected by the use of artificial intelligence technology, and whether such uses should be subject to additional controls, oversight, or limitations.

(K) Matters relating to urbanization and the development of smart cities.

1   (2) STUDY.—The Advisory Committee shall

2 study and assess the following:

3   (A) How the term "artificial intelligence"

4   should be defined for purposes of this section

5   and how the relevant scope of the Advisory

6   Committee should be defined, including how

7   such definitions relate to artificial systems and

8   both narrow and general forms of artificial in-

9   telligence. In carrying out this subparagraph,

10   the Advisory Committee shall consider the fol-

11   lowing:

12   "(1) The term 'artificial intelligence' includes

13 the following:

14   "(A) Any artificial systems that perform

15   tasks under varying and unpredictable cir-

16   cumstances, without significant human over-

17   sight, or that can learn from their experience

18   and improve their performance. Such systems

19   may be developed in computer software, phys-

20   ical hardware, or other contexts not yet con-

21   templated. They may solve tasks requiring

22   human-like perception, cognition, planning,

23   learning, communication, or physical action. In

24   general, the more human-like the system within

1   the context of its tasks, the more it can be said
2   to use artificial intelligence.

3   "(B) Systems that think like humans, such
4   as cognitive architectures and neural networks.

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

10 "(D) A set of techniques, including ma-
11 chine learning, that seek to approximate some
12 cognitive task.

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

18 "(2) The term 'artificial general intelligence'
19 means a notional future artificial intelligence system
20 that exhibits apparently intelligent behavior at least
21 as advanced as a person across the range of cog-
22 nitive, emotional, and social behaviors.

23 "(3) The term 'narrow artificial intelligence'
24 means an artificial intelligence system that address-
25 es specific application areas such as playing stra-

tegic games, language translation, self-driving vehicles, and facial or other image recognition.".

(B) How to create a climate for public and private sector investment and innovation in artificial intelligence.

(C) The possible benefits and effects that the development of artificial intelligence may have on the economy, workforce, and competitiveness of the United States.

(D) Whether and how networked, automated, artificial intelligence applications and robotic devices will displace or create jobs and how any job-related gains relating to artificial intelligence can be maximized.

(E) How bias can be identified and mitigated or eliminated when appropriate in the development of artificial intelligence and in the algorithms that support them, including with respect to the following:

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

(ii) Diversity in the development of 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 the public at large.

6   (M) How the development of artificial in-

7   telligence can affect cost savings and streamline

8   operations in various areas of government oper-

9   ations, including health care, cybersecurity, in-

10   frastructure, and disaster recovery.

11   (N) How existing laws, regulations, and

12   guidance affect or address the provisions of this

13   section.

14   (O) Such other matters as the Advisory

15   Committee considers appropriate.

16   (3) REPORTS AND RECOMMENDATIONS.—

17   (A) REPORT BY ADVISORY COMMITTEE.—

18   Not later than 540 days after the date of the

19   enactment of this Act, the Advisory Committee

20   shall submit to the Secretary and to Congress

21   a report on the findings of the Advisory Com-

22   mittee and such recommendations as the Advi-

23   sory Committee may have for administrative or

24   legislative action relating to artificial intel-

25   ligence.

1   (B) RECOMMENDATIONS OF SECRETARY.—

2   Not later than 90 days after receiving the re-

3   port submitted under subparagraph (A), the

4   Secretary shall review the report and submit to

5   Congress such recommendations as the Sec-

6   retary may have with respect to the matters

7   contained in the report submitted under sub-

8   paragraph (A).

9   (c) MEMBERSHIP.—

10   (1) VOTING MEMBERS.—

11   (A) IN GENERAL.—The Advisory Com-

12   mittee shall be composed of 19 voting members

13   who shall be appointed by the Secretary, with

14   advisement from the Chair and Ranking Mem-

15   ber of the Committee on Commerce, Science,

16   and Transportation of the Senate and the Chair

17   and Ranking Member of the Committee on En-

18   ergy and Commerce of the House of Represent-

19   atives, for purposes of the Advisory Committee

20   from among individuals with expertise in mat-

21   ters relating to workforce development, ethics,

22   privacy, artificial intelligence, or computer

23   science.

1   (B) REPRESENTATION.—In carrying out

2 subparagraph (A), the Secretary shall ensure

3 that voting members are appointed as follows:

4   (i) Five members from the academic

5 or research community.

6   (ii) Six members from private indus-

7 try, at least 1 of whom shall be from a

8 small business concern.

9   (iii) Six members from civil society, at

10 least 2 of whom shall be from groups that

11 advocate for civil liberties or civil rights.

12   (iv) Two members from labor organi-

13 zations or groups, including those that rep-

14 resent the unique interests of traditionally

15 underrepresented populations.

16   (C) GEOGRAPHICAL DIVERSITY.—In car-

17 rying out subparagraph (A), the Secretary shall

18 ensure that the voting members of the Advisory

19 Committee come from diverse geographical loca-

20 tions within the United States.

21   (2) NONVOTING MEMBERS.—The Advisory

22 Committee shall also be composed of such nonvoting

23 members as the Secretary considers appropriate, ex-

24 cept that the Secretary shall appoint at least 1 such

25 member from each of the following:

(A) The Department of Education.

(B) The Department of Justice.

(C) The Department of Labor.

(D) The Department of Transportation.

(E) The Department of Homeland Security.

(F) The Federal Trade Commission.

(G) The National Institute of Standards and Technology.

(H) The National Science Foundation.

(I) The National Science and Technology Council.

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

(K) The Privacy and Civil Liberties Oversight Board.

(L) Such other nonvoting members as the voting members of the Advisory Committee consider appropriate.

(3) CHAIRPERSON.—The Secretary shall appoint a chairperson for the Advisory Committee from among the members appointed under paragraph (1).

1   (d) MEETINGS.—The Advisory Committee shall

2 meet—

3   (1) in person no less frequently than twice each

4 year; and

5   (2) via telepresence no less frequently than once

6 every 2 months.

7   (e) SUBCOMMITTEE ON ARTIFICIAL INTELLIGENCE

8 AND LAW ENFORCEMENT AND SECURITY.—

9   (1) ESTABLISHMENT.—The chairperson of the

10 Advisory Committee shall establish a subcommittee

11 on matters relating to the development of artificial

12 intelligence relating to law enforcement and security

13 matters.

14   (2) ADVICE.—The subcommittee shall provide

15 advice to the Secretary on matters relating to the

16 development of artificial intelligence relating to law

17 enforcement and security matters, including advice

18 on the following:

19   (A) Bias, including whether the use of fa-

20 cial recognition by government authorities, in-

21 cluding law enforcement agencies, is taking into

22 account ethical considerations and addressing

23 whether such use should be subject to addi-

24 tional oversight, controls, and limitations.

1   (B) Security of data, including law en-

2   forcement's access to data and the security pa-

3   rameters for that data.

4   (C) Adoptability, including methods to

5   allow the United States Government and indus-

6   try to take advantage of artificial intelligence

7   technologies such as facial recognition tech-

8   nology while at the same time ensuring the po-

9   tential abuse of such technologies is sufficiently

10   mitigated.

11   (D) Legal standards, including whether

12   technological advancements in artificial intel-

13   ligence have or will outpace the legal and regu-

14   latory regimes implemented to protect con-

15   sumers, including the tools, training, and re-

16   sources that could be used by government, in-

17   cluding law enforcement agencies, to adapt to

18   the use of artificial intelligence technologies in-

19   cluding facial recognition consistent with the

20   privacy rights and civil liberties issues raised by

21   the use of these technologies.

22   (3) MEMBERSHIP.—The subcommittee shall be

23   composed of 9 members selected by the chairperson

24   as follows:

    (A) Three members from the law enforce-

ment community.

    (B) Two members from groups that advo-

cate for civil liberties or civil rights.

    (C) Two members from private industry.

    (D) Two members from the private secu-

rity community.

 (f) POWERS.—In order to carry out its duties under

subsection (b), the Advisory Committee may—

    (1) hold such hearings, sit and act at such

times and places, take such testimony, and receive

such evidence as the Advisory Committee considers

appropriate;

    (2) submit to Congress such recommendations

as the Advisory Committee considers appropriate;

    (3) submit to Federal agencies such rec-

ommendations as the Advisory Committee considers

appropriate;

    (4) issue reports, guidelines, and memoranda;

    (5) hold or host conferences and symposia;

    (6) enter into cooperative agreements with

third-party experts to obtain relevant advice or ex-

pertise, and oversee staff;

    (7) consult with stakeholders and experts;

    (8) establish subcommittees; and

1   (9) establish rules of procedure.

2   (g) TRAVEL EXPENSES.—The members of the Advi-

3   sory Committee shall be allowed travel expenses, including

4   per diem in lieu of subsistence, at rates authorized for em-

5   ployees of agencies under subchapter I of chapter 57 of

6   title 5, United States Code, while away from their homes

7   or regular places of business in the performance of services

8   for the Advisory Committee.

9   (h) FUNDING.—

10   (1) IN GENERAL.—Except as provided in para-

11   graph (2), amounts to carry out this section shall be

12   derived from amounts appropriated or otherwise

13   made available to the Secretary.

14   (2) DONATIONS.—

15   (A) AUTHORIZATION.—The Advisory Com-

16   mittee may solicit and accept donations from

17   private persons and non-Federal entities to

18   carry out this section.

19   (B) LIMITATION.—Of the amounts ex-

20   pended by the Advisory Committee in a fiscal

21   year to carry out this section, not more than

22   half may be derived from amounts received

23   under subparagraph (A).