



US AI-Related Legislation



AI In Government Act of 2020



AI In Government Act of 2020

Division U of the “Consolidated Appropriations Act, 2021”

Creates AI Center of Excellence (AI CoE) to:

- Facilitate the adoption of artificial intelligence technologies in the Federal Government;
- Improve cohesion and competency in the adoption and use of artificial intelligence within the Federal Government



AI In Government Act of 2020

Duties of the AI Center of Excellence

- Regularly convening individuals from agencies, industry, Federal laboratories, nonprofit organizations, institutions of higher education, and other entities to discuss recent developments in artificial intelligence;
- Collecting, aggregating, and publishing on a publicly available website information regarding programs, pilots, and other initiatives led by other agencies and any other information determined appropriate by the Administrator;
- Advising the Administrator, the Director, and agencies on the acquisition and use of artificial intelligence through technical insight and expertise, as needed;
- Assist agencies in applying Federal policies regarding the management and use of data in applications of artificial intelligence;
- Consulting with agencies, including the Department of Defense, the Department of Commerce, the Department of Energy, the Department of Homeland Security, the Office of Management and Budget, the Office of the Director of National Intelligence, and the National Science Foundation, that operate programs, create standards and guidelines, or otherwise fund internal projects or coordinate between the public and private sectors relating to artificial intelligence;
- Advising the Director on developing policy related to the use of artificial intelligence by agencies
- Advising the Director of the Office of Science and Technology Policy on developing policy related to research and national investment in artificial intelligence



AI In Government Act of 2020

Guidance For Agency Use in AI

No later than 270 days after enactment of this act the Director of the Office of Management and Budget shall issue a memorandum to the head of each agency that shall—

- Inform the development of policies regarding Federal acquisition and use by agencies regarding technologies that are empowered or enabled by artificial intelligence, including an identification of the responsibilities of agency officials managing the use of such technology;
- Recommend approaches to remove barriers for use by agencies of artificial intelligence technologies in order to promote the innovative application of those technologies while protecting civil liberties, civil rights, and economic and national security;
- Identify best practices for identifying, assessing, and mitigating any discriminatory impact or bias on the basis of any classification protected under Federal nondiscrimination laws, or any unintended consequence of the use of artificial intelligence, including policies to identify data used to train artificial intelligence algorithms as well as the data analyzed by artificial intelligence used by the agencies; and
- Provide a template of the required contents of the agency plans



AI In Government Act of 2020 Plans

Not later than 180 days after the date on which the Director of the OMB issues the memorandum required under subsection (a) or an update to the memorandum required under subsection (d), the head of each agency shall submit to the Director and post on a publicly available page on the website of the agency:

- (1) a plan to achieve consistency with the memorandum; or
- (2) a written determination that the agency does not use and does not anticipate using artificial intelligence.
- UPDATES.—Not later than 2 years after the date on which the Director of the OMB issues the memorandum required under subsection (a), and every 2 years thereafter for 10 years, the Director of the OMB shall issue updates to the memorandum



AI In Government Act of 2020

Occupational Series For AI

Not later than 18 months after the date of enactment of this Act, and in accordance with chapter 51 of title 5, United States Code, the Director of the Office of Personnel Management shall —

- (1) Identify key skills and competencies needed for positions related to artificial intelligence;
- (2) Establish an occupational series, or update and improve an existing occupational job series, to include positions the primary duties of which relate to artificial intelligence;
- (3) To the extent appropriate, establish an estimate of the number of Federal employees in positions related to artificial intelligence, by each agency; and
- (4) Using the estimate established in paragraph (3), prepare a 2-year and 5-year forecast of the number of Federal employees in positions related to artificial intelligence that each agency will need to employ
- PLAN.—Not later than 120 days after the date of enactment of this Act, the Director of the Office of Personnel Management shall submit to the Committee on Homeland Security and Governmental Affairs of the Senate and the Committee on Oversight and Reform of the House of Representatives a comprehensive plan with a timeline to complete requirements described above



National Artificial Intelligence Initiative Act of 2020



National Artificial Intelligence Initiative Act of 2020

Division E, Section 5001 of the “WILLIAM M. (MAC) THORNBERRY NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEAR 2021”

“artificial intelligence” means a machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations or decisions influencing real or virtual environments. Artificial intelligence systems use machine and human-based inputs to— (A) perceive real and virtual environments; (B) abstract such perceptions into models through analysis in an automated manner; and (C) use model inference to formulate options for information or action.

National Artificial Intelligence Initiative Act of 2020

National Artificial Intelligence Initiative



Purposes

- (1) Ensure continued United States leadership in artificial intelligence research and development;
- (2) Lead the world in the development and use of trustworthy artificial intelligence systems in the public and private sectors;
- (3) Prepare the present and future United States workforce for the integration of artificial intelligence systems across all sectors of the economy and society; and
- (4) Coordinate ongoing artificial intelligence research, development, and demonstration activities among the civilian agencies, the Department of Defense and the Intelligence Community to ensure that each informs the work of the others

National Artificial Intelligence Initiative Act of 2020

National Artificial Intelligence Initiative



Activities

- (1) Sustained and consistent support for artificial intelligence research and development through grants, cooperative agreements, testbeds, and access to data and computing resources
- (2) Support for K-12 education and postsecondary educational programs, including workforce training and career and technical education programs, and informal education programs
- (3) Support for interdisciplinary research, education, and workforce training programs for students and researchers that promote learning in the methods and systems used in artificial intelligence and foster interdisciplinary perspectives and collaborations among subject matter experts in relevant fields
- (4) Interagency planning and coordination of Federal artificial intelligence research, development, demonstration, standards engagement, and other activities under the Initiative, as appropriate
- (5) Outreach to diverse stakeholders, including citizen groups, industry, and civil rights and disability rights organizations
- (6) Leveraging existing Federal investments to advance objectives of the Initiative
- (7) Support for a network of interdisciplinary artificial intelligence research institutes
- (8) Support opportunities for international cooperation with strategic allies, as appropriate, on the research and development, assessment, and resources for trustworthy artificial intelligence systems

National Artificial Intelligence Initiative Act of 2020

National Artificial Intelligence Initiative



Sets Up a "*National Artificial Intelligence Initiative Office*" to

- (1) Provide technical and administrative support to the Interagency Committee and the Advisory Committee;
- (2) Serve as the point of contact on Federal artificial intelligence activities for Federal departments and agencies, industry, academia, nonprofit organizations, professional societies, State governments, and such other persons as the Initiative Office considers appropriate to exchange technical and programmatic information;
- (3) Conduct regular public outreach to diverse stakeholders, including civil rights and disability rights organizations; and
- (4) Promote access to the technologies, innovations, best practices, and expertise derived from Initiative activities to agency missions and systems across the Federal Government

National Artificial Intelligence Initiative Act of 2020

National Artificial Intelligence Initiative



Sets Up an Interagency Committee to

- (1) Provide for interagency coordination of Federal artificial intelligence research, development, and demonstration activities and education and workforce training activities and programs of Federal departments and agencies undertaken pursuant to the Initiative;
- (2) Not later than 2 years after the date of the enactment of this Act, develop a strategic plan for artificial intelligence (to be updated not less than every 3 years) that establishes goals, priorities, and metrics for guiding and evaluating how the agencies carry out the Initiative
- (3) As part of the President's annual budget request to Congress, propose an annually coordinated interagency budget for the Initiative to the Office of Management and Budget that is intended to ensure that the balance of funding across the Initiative is sufficient to meet the goals and priorities established for the Initiative; and
- (4) In carrying out this section, take into consideration the recommendations of the Advisory Committee, existing reports on related topics, and the views of academic, State, industry, and other appropriate groups



National Artificial Intelligence Initiative Act of 2020

National Artificial Intelligence Initiative

Sets Up an National Intelligence Advisory Committee to advise the President and the Initiative Office on matters related to the Initiative, including recommendations related to areas like —

- (1) the current state of United States competitiveness and leadership in artificial intelligence;
- (2) the progress made in implementing the Initiative;
- (3) the state of the science around artificial intelligence;
- (4) issues related to artificial intelligence and the United States workforce
- (5) how to leverage the resources of the initiative to streamline and enhance operations in various areas of government operations;
- (6) the need to update the Initiative;
- (7) the balance of activities and funding across the Initiative;
- (8) whether the strategic plan developed or updated by the Interagency Committee is helping to maintain United States leadership in artificial intelligence;
- (9) the management, coordination, and activities of the Initiative;
- (10) whether ethical, legal, safety, security, and other appropriate societal issues are adequately addressed by the Initiative;
- (11) opportunities for international cooperation with strategic allies on artificial intelligence research activities, standards development, and the compatibility of *international regulations*;

National Artificial Intelligence Initiative Act of 2020



National Artificial Intelligence Initiative

Sets Up an *National AI Research Task Force*:

- to investigate the feasibility and advisability of establishing and sustaining a National Artificial Intelligence Research Resource; and
- to propose a roadmap detailing how such resource should be established and sustained



National Artificial Intelligence Initiative Act of 2020

National Artificial Intelligence Research Institutes

National Institute of Standards and Technology (NIST)

- *(1) support measurement research and development of best practices and voluntary standards for trustworthy artificial intelligence systems*
- *(2) produce curated, standardized, representative, high-value, secure, aggregate, and privacy protected data sets for artificial intelligence research, development, and use;*
- *(3) support one or more institutes for the purpose of advancing measurement science, voluntary consensus standards, and guidelines for trustworthy artificial intelligence systems;*
- *(4) support and strategically engage in the development of voluntary consensus standards, including international standards, through open, transparent, and consensus-based processes;*
- *(5) enter into and perform such contracts as may be necessary in the conduct of the work of NIST and on such terms as the Director considers appropriate*
- *RISK MANAGEMENT FRAMEWORK.—Not later than 2 years after the date of the enactment of this Act, the Director shall work to develop, and periodically update, in collaboration with other public and private sector organizations, including the National Science Foundation and the Department of Energy, a voluntary risk management framework for trustworthy artificial intelligence systems*



National Artificial Intelligence Initiative Act of 2020

National Artificial Intelligence Research Institutes

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION ARTIFICIAL INTELLIGENCE CENTER

- (1) coordinate and facilitate artificial intelligence research and innovation, tools, systems, and capabilities across the National Oceanic and Atmospheric Administration;
- (2) establish data standards and develop and maintain a central repository for agency-wide artificial intelligence applications;
- (3) accelerate the transition of artificial intelligence research to applications in support of the mission of the National Oceanic and Atmospheric Administration;
- (4) develop and conduct training for the workforce of the National Oceanic and Atmospheric Administration related to artificial intelligence research and application of artificial intelligence for such agency;
- (5) facilitate partnerships between the National Oceanic and Atmospheric Administration and other public sector organizations, private sector organizations, and institutions of higher education for research, personnel exchange, and workforce development with respect to artificial intelligence systems; and
- (6) make data of the National Oceanic and Atmospheric Administration accessible, available, and ready for artificial intelligence applications



National Artificial Intelligence Initiative Act of 2020

National Artificial Intelligence Research Institutes

National Science Foundation (NSF)

- (1) support research, including interdisciplinary research, on artificial intelligence systems and related areas;
- (2) use the existing programs of the National Science Foundation, in collaboration with other Federal departments and agencies, as appropriate to—
 - (A) improve the teaching and learning of topics related to artificial intelligence systems in K-12 education and postsecondary educational programs; and
 - (B) increase participation in artificial intelligence related fields;
- (3) support partnerships among institutions of higher education, Federal laboratories, nonprofit organizations, State, local, and Tribal governments, industry, and potential users of artificial intelligence systems that facilitate collaborative research, personnel exchanges, and workforce development;
- (4) ensure adequate access to research and education infrastructure with respect to artificial intelligence systems;
- (5) conduct prize competitions, as appropriate;
- (6) coordinate research efforts funded through existing programs across the directorates of the National Science Foundation;
- (7) provide guidance on data sharing by grantees to public and private sector organizations consistent with the standards and guidelines developed by NIST; and
- (8) evaluate opportunities for international collaboration with strategic allies on artificial intelligence research and development



Executive Order 13859 Maintaining American Leadership in Artificial Intelligence



Executive Order 13859

Maintaining American Leadership in Artificial Intelligence

Issued February 11, 2019

Definitions

- “artificial intelligence” means the full extent of Federal investments in AI, to include: R&D of core AI techniques and technologies; AI prototype systems; application and adaptation of AI techniques; architectural and systems support for AI; and cyberinfrastructure, data sets, and standards for AI; and
- (b) the term “open data” shall, in accordance with OMB Circular A- 130 and memorandum M-13-13, mean “publicly available data structured in a way that enables the data to be fully discoverable and usable by end users.



Executive Order 13859

Maintaining American Leadership in Artificial Intelligence

Policies and Principles

- Drive development of appropriate technical standards and reduce barriers to the safe testing and deployment of AI technologies
- Train current and future generations of American workers with the skills to develop and apply AI technologies
- Foster public trust and confidence in AI technologies and protect civil liberties, privacy, and American values in their application
- Promote an international environment that supports American AI research and innovation and opens markets for American AI industries, while protecting our technological advantage in AI and protecting our critical AI technologies from acquisition by strategic competitors and adversarial nations



Executive Order 13859

Maintaining American Leadership in Artificial Intelligence - Objectives

- Promote sustained investment in AI R&D in collaboration with industry, academia, international partners and allies, and other non-Federal entities
- Enhance access to high-quality and fully traceable Federal data, models, and computing resources to increase the value of such resources for AI R&D, while maintaining safety, security, privacy, and confidentiality protections consistent with applicable laws and policies
- Reduce barriers to the use of AI technologies to promote their innovative application while protecting American technology, economic and national security, civil liberties, privacy, and values
- Ensure that technical standards minimize vulnerability to attacks from malicious actors and reflect Federal priorities for innovation, public trust, and public confidence in systems that use AI technologies; and develop international standards to promote and protect those priorities
- Train the next generation of American AI researchers and users through apprenticeships; skills programs; and education in science, technology, engineering, and mathematics (STEM), with an emphasis on computer science, to ensure that American workers, including Federal workers, are capable of taking full advantage of the opportunities of AI
- Develop and implement an action plan to protect the advantage of the United States in AI and technology critical to United States economic and national security interests against strategic competitors and foreign adversaries



Executive Order 13859

Maintaining American Leadership in Artificial Intelligence

- Initiative shall be coordinated through the National Science and Technology Council (NSTC) Select Committee on Artificial Intelligence (Select Committee)
- Actions shall be implemented by agencies that conduct foundational AI R&D, develop and deploy applications of AI technologies, provide educational grants, and regulate and provide guidance for applications of AI technologies
- Heads of implementing agencies that also perform or fund R&D (AI R&D agencies), shall consider AI as an agency R&D priority, as appropriate to their respective agencies' missions
- Heads of AI R&D agencies shall budget an amount for AI R&D that is appropriate for this prioritization

Executive Order 13859

Maintaining American Leadership in Artificial Intelligence



- Heads of all agencies shall review their Federal data and models to identify opportunities to increase access and use by the greater non-Federal AI research community in a manner that benefits that community, while protecting safety, security, privacy, and confidentiality
 - In identifying data and models for consideration for increased public access, agencies shall consider issues such as:
 - Privacy and civil liberty protections for individuals who may be affected by increased access and use, as well as confidentiality protections for individuals and other data providers;
 - Safety and security concerns, including those related to the association or compilation of data and models;
 - Data documentation and formatting, including the need for interoperable and machine-readable data formats;
 - Changes necessary to ensure appropriate data and system governance; and
 - Any other relevant considerations



Executive Order 13859

Maintaining American Leadership in Artificial Intelligence

- Heads of implementing agencies that also provide educational grants shall, to the extent consistent with applicable law, consider AI as a priority area within existing Federal fellowship and service programs
- Eligible programs for prioritization shall give preference to American citizens, to the extent permitted by law, and shall include:
 - High school, undergraduate, and graduate fellowship; alternative education; and training programs;
 - Programs to recognize and fund early-career university faculty who conduct AI R&D, including through Presidential awards and recognitions;
 - Scholarship for service programs;
 - Direct commissioning programs of the United States Armed Forces; and
 - Programs that support the development of instructional programs and curricula that encourage the integration of AI technologies into courses in order to facilitate personalized and adaptive learning experiences for formal and informal education and training



Executive Order 13960 Promoting the Use of Trustworthy Artificial Intelligence in the Federal Government

Executive Order 13960

Promoting the Use of Trustworthy Artificial Intelligence in the Federal Government



Issued December 3, 2020

Policy

- Promote the innovation and use of AI, where appropriate, to improve Government operations and services in a manner that fosters public trust, builds confidence in AI, protects our Nation's values, and remains consistent with all applicable laws, including those related to privacy, civil rights, and civil liberties
- Responsible agencies shall, when considering the design, development, acquisition, and use of AI in Government, be guided by the common set of Principles which are designed to foster public trust and confidence in the use of AI, protect our Nation's values, and ensure that the use of AI remains consistent with all applicable laws, including those related to privacy, civil rights, and civil liberties



Executive Order 13960

Promoting the Use of Trustworthy Artificial Intelligence in the Federal Government

Policy

- When designing, developing, acquiring, and using AI in the Federal Government, agencies shall adhere to the following Principles:
 - Lawful and respectful of our Nation's values (including those addressing privacy, civil rights, and civil liberties)
 - Purposeful and performance-driven
 - Accurate, reliable, and effective
 - Safe, secure, and resilient
 - Understandable
 - Responsible and traceable
 - Regularly monitored
 - Transparent
 - Accountable

Promoting the Use of Trustworthy Artificial Intelligence in the Federal Government



- The Principles and implementation guidance in this order shall apply to AI designed, developed, acquired, or used specifically to advance the execution of agencies' missions, enhance decision making, or provide the public with a specified benefit
- This order applies to both existing and new uses of AI; both standalone AI and AI embedded within other systems or applications; AI developed both by the agency or by third parties on behalf of agencies for the fulfilment of specific agency missions, including relevant data inputs used to train AI and outputs used in support of decision making; and agencies' procurement of AI applications
- This order does not apply to:
 - AI used in defense or national security systems, in whole or in part, although agencies shall adhere to other applicable guidelines and principles for defense and national security purposes, such as those adopted by the Department of Defense and the Office of the Director of National Intelligence;
 - AI embedded within common commercial products, such as word processors or map navigation systems, while noting that Government use of such products must nevertheless comply with applicable law and policy to assure the protection of safety, security, privacy, civil rights, civil liberties, and American values; and
 - AI research and development (R&D) activities, although the Principles and OMB implementation guidance should inform any R&D directed at potential future applications of AI in the Federal Government