



December 5, 2023

RESPONSE TO OMB REQUEST FOR COMMENTS ON DRAFT MEMORANDUM REGARDING ADVANCING GOVERNANCE, INNOVATION, AND RISK MANAGEMENT FOR AGENCY USE OF ARTIFICIAL INTELLIGENCE*

The Association for Computing Machinery (ACM), founded in 1947 as a non-profit and non-lobbying organization, is the world's largest and longest-established society of individual professionals involved in virtually every aspect of computing. Our over 50,000 members in the United States and 100,000 worldwide serve in government, industry, academia, and the public sector. Many have pioneered and continue to pursue work on the cutting edge of computing, including artificial intelligence.

Through its U.S. Technology Policy Committee (USTPC), ACM strives to provide apolitical technical expertise and analysis to Congress, the Executive Branch, and policymakers throughout government to inform technology policy. Consistent with this mission, USTPC is pleased to offer the following general recommendations in response to the Office of Management and Budget's *Request for Comments on Advancing Governance, Innovation, and Risk Management for Agency Use of Artificial Intelligence Draft Memorandum* (OMB Memorandum):¹

1) Devise and Implement a National Strategy for the Interoperability of Digital Services

USTPC recommends that OMB orchestrate the development and implementation of a comprehensive and detailed strategy to assure the interoperability of digital services, including those enabled by AI, across all federal agencies.² It should be neutral and open, and accompanied by comprehensive principles and guidelines to inform its implementation to be followed by

* These comments were principally drafted for USTPC by Committee member Carlos E. Jimenez-Gomez and Committee Chair Larry Medsker. Also contributing were Past USTPC Chair Jim Hendler, Algorithms and AI Subcommittee Chair Jeanna Matthews, and Subcommittee members Ricardo Baeza-Yates, Simson Garfinkel, and Demetrios Kirkiles.

¹ See 88 FR 75625 (November 3, 2023) [<https://www.federalregister.gov/documents/2023/11/03/2023-24269/request-for-comments-on-advancing-governance-innovation-and-risk-management-for-agency-use-of>].

² USTPC notes that the OMB Memorandum directly addresses interoperability. See, e.g., Sec. 5.d. on "Managing Risks in Federal Procurement of Artificial Intelligence," subsection 5.d.iii. on "Promoting Competition in Procurement of AI," as follows: "Agencies should take appropriate steps to ensure that Federal AI procurement practices promote opportunities for competition among contractors and do not improperly entrench incumbents. Such steps may include promoting interoperability and ensuring that vendors do not inappropriately favor their own products." In addition, Sec. 11 of the President's October 30, 2023 Executive Order states: "To advance responsible global technical standards for AI development and use outside of military and intelligence areas, the Secretary of Commerce, in coordination with the Secretary of State and the heads of other relevant agencies as appropriate, shall lead preparations for

government agencies.³ These should also provide mechanisms to guide and facilitate its adoption. Specifically, such an ecosystem, at minimum, must be:

- Multi-dimensional – The strategy must address multiple dimensions of interoperability including, but not limited to: technical, semantic (data and information),⁴ and organizational (as well as interoperability governance). We note that NATO⁵ and the European Union have taken such a holistic approach, the latter having also addressed legal interoperability;⁶ and
- Universal/Available – USTPC also urges OMB to create a centralized repository of trusted interoperable resources accessible to all germane agencies that includes detailed information documenting the specific means employed by agencies to minimize efforts and maximize impact.⁷ Not only would such a mechanism promote interoperability, but it also could enhance effectiveness, efficiency, consistency, and the adoption of more trusted, safe, and secure digital services. Open and interoperable resources also could help to accelerate convergence in the standardization of digital services and potentially boost the nations' digital economy.

2) Emphasize Responsible AI

The term “responsible AI” is often used as a shorthand for a number of properties of algorithmic systems in general, and AI systems in particular, that require guiding principles and practices. The USTPC has developed statements on a number of these including the transparency, accountability, and the safety of all algorithmic systems, as well as on specific requirements for the principled development of generative AI programs. See:

- *ACM TechBrief: Generative AI (Summer 2023)*;⁸

a coordinated effort with key international allies and partners and with standards development organizations, to drive the development and implementation of AI-related consensus standards, cooperation and coordination, and information sharing."

³ See, for example, the European Interoperability Framework. See https://ec.europa.eu/isa2/eif_en/.

⁴ Among other points, components such as common taxonomies, ontologies, and other elements linked to semantic interoperability can be enablers to leverage AI-based results.

⁵ See https://www.nato.int/cps/en/natohq/topics_84112.htm

⁶ See Angi, L., Combetto, M., Martin Bosch, J. and Rodriguez Müller, P., Artificial Intelligence for Interoperability in the European Public Sector, Publications Office of the European Union, Luxembourg, 2023, doi:10.2760/633646, JRC134713.

⁷ See, e.g., the European Union interoperable resources repository. <https://joinup.ec.europa.eu/collection/joinup/interoperability-solutions>.

⁸ See <https://dl.acm.org/doi/pdf/10.1145/3626110>.

- USTPC Comments to White House OSTP on National AI Priorities (July 7, 2023);⁹
- Principles for the Development, Deployment, and Use of Generative AI Technologies (June 27, 2023);¹⁰
- *ACM TechBrief: Safer Algorithmic Systems* (January 2023);¹¹ and
- Statement on Principles for Responsible Algorithmic Systems (October 2022).¹²

USTPC thus regards the OMB Memorandum as an opportunity to underscore and widely disseminate the importance of a code and culture of ethics (essentially defined as the combination of the above principles) being at the core of AI technology development and deployment.¹³ Accordingly, USTPC recommends that the OMB Memorandum formally articulate and endorse strengthening the ethical use of AI as a core value.¹⁴ Doing so, we note, also may help prevent intended and unintended bias and misuses of AI.

3) Address Privacy from the Beginning of the Design and Development Process

USTPC has long advocated that the disciplines of privacy by design¹⁵ and privacy by default inform and be incorporated into federal policy wherever relevant.¹⁶ The OMB Memorandum presents a prime opportunity to do so, particularly with specific references to auditing processes and audit trails. USTPC anticipates that implementing this recommendation will foster stricter control of data, increased privacy, and enhanced personal data protection.

⁹ See <https://www.acm.org/binaries/content/assets/public-policy/final-ustpc-ostp-ai-comments.pdf>

¹⁰ See <https://www.acm.org/binaries/content/assets/public-policy/ustpc-approved-generative-ai-principles>

¹¹ See <https://dl.acm.org/doi/pdf/10.1145/3582277>

¹² See <https://www.acm.org/binaries/content/assets/public-policy/final-joint-ai-statement-update.pdf>

¹³ See an overview of ethical and societal concerns at <https://www.iso.org/standard/78507.html> and articles in *AI and Ethics*: <https://www.springer.com/journal/43681/aims-and-scope>

¹⁴ Various new AI-related standards are adopting a social dimension approach, where ethics is also at the core of the standardization effort. See specific standards and groups of standards, such as IEEE SA AI Ethics and Governance Standards <https://ieeexplore.ieee.org/browse/standards/get-program/page/series?id=93> and ISO/IEC TR 24368:2022. Information technology. Artificial intelligence. Overview of ethical and societal concerns <https://www.iso.org/standard/78507.html>

¹⁵ See <https://privacy.ucsc.edu/resources/privacy-by-design---foundational-principles.pdf>. See also <https://www.oecd.org/publications/emerging-privacy-enhancing-technologies-bf121be4-en.htm>

¹⁶ See, e.g., [USACM Statement on the Importance of Preserving Personal Privacy](#) (March 1, 2018).

4) Standardize Definitions and Concepts

Common understanding of key AI-related terms and concepts among all federal agencies, the computing profession, and the public will be critical to the development of policies and mechanisms for the efficient delivery of AI-based digital services. USTPC believes that the need for such consistency and clarity has increasingly been publicly recognized and pursued. Indeed, the Organization for Economic Co-operation and Development's (OECD) Council recently adopted this new definition of Artificial Intelligence: "An AI system is a machine-based system that, for explicit or implicit objectives, infers, from the input it receives, how to generate outputs such as predictions, content, recommendations, or decisions that can influence physical or virtual environments. Different AI systems vary in their levels of autonomy and adaptiveness after deployment."¹⁷

In addition, we note that the Technology Standards Working Group of the US - EU Trade and Technology Council recently sought broad public comment on a detailed first edition of a *Terminology and Taxonomy for Artificial Intelligence*.¹⁸ USTPC commends the comments of ACM's Europe Technology Policy Council in that proceeding to OMB for its consideration in producing the next draft of the OMB Memorandum, together with the five recent documents cited in Section 2 above.

USTPC stands ready to further assist OMB. Should questions arise concerning this document, or to arrange a technical briefing with ACM and USTPC's expert members, please contact ACM's Technology Policy Office at acmpo@acm.org or 202-580-6555.

¹⁷ See <https://oecd.ai/en/ai-principles>

¹⁸ See <https://www.nist.gov/artificial-intelligence/ai-policy-contributions> and <https://futurium.ec.europa.eu/en/EU-US-TTC/wg1/news/input-first-edition-ttc-wg1-eu-us-terminology-and-taxonomy-artificial-intelligence>.