March 13, 2020

Russell Vought
Acting Director
Office of Management and Budget
Washington, DC 20503

Re: ITI Comments Responding to OMB Draft Memo on Guidance for Regulation of Artificial Intelligence Applications (Doc. 2020-00261; 85 FR 1525)

Dear Mr. Vought,

The Information Technology Industry Council (ITI) appreciates the opportunity to submit comments in response to the draft memo released by the Office of Management and Budget (OMB) on "Guidance for Regulation of Artificial Intelligence Applications" (hereafter "draft memo").

ITI represents the world's leading information and communications technology (ICT) companies. We promote innovation worldwide, serving as the ICT industry's premier advocate and thought leader in the United States and around the globe. ITI's membership comprises top innovation companies from all corners of the technology sector, including hardware, software, digital services, semiconductor, network equipment, and other internet and technology-enabled companies that rely on ICT to evolve their businesses.

Artificial Intelligence (AI) is a priority technology area for many of our members, who develop and use AI systems to improve technology, facilitate business, and solve problems big and small. ITI and its member companies believe that effective government approaches to AI clear barriers to innovation, provide predictable and sustainable environments for business, protect public safety, and build public trust in the technology. We support the responsible development of AI in line with the preceding objectives and view the release of these principles as a positive step toward our shared goal of advancing trustworthy AI innovation that benefits society, the economy and consumers.

ITI supports the Administration's national AI strategy, as embodied in the *Executive Order on Maintaining American Leadership in Artificial Intelligence* (13895). The United States has a real opportunity to be a leader in AI innovation and in global AI policy. The principles laid out in this draft memo help to set the stage for that desired outcome.

We applaud the emphasis on using a risk-based approach to AI regulation, something that we advocate for regularly in a variety of contexts. The value of a risk-based approach cannot be overstated, particularly given the types of risks often raised in the context of AI, including privacy, security and safety-related risks. Indeed, technology innovation does not always necessitate a change in existing or new regulation, especially where existing regulation may adequately meet desired policy objectives. Given the rapidly evolving nature of AI, regulation is difficult and prone to

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becoming obsolete quickly. We are therefore encouraged by OMB's proposal that federal agencies consider AI applications individually, instead of attempting to apply a horizontal regulation across all AI technologies and applications.

We also appreciate the flexible approach put forward in the draft memo, especially given the nascent nature of AI. A flexible approach will more easily allow for adaptation to rapid changes and updates to AI applications. Indeed, one of the evergreen challenges facing the legislative and executive branches is how to craft public policies that keep pace with innovation, i.e. designing those policies to be "futureproof."

As such, **ITI also supports the draft memo's emphasis on using voluntary standards as an alternative to new regulation.** As referenced in our recent recommendations to the European Union, industry-led standardization can help form a bridge between AI regulations and practical implementation.[1] Using and participating in the development of common AI standards can help establish global consensus around technical aspects, management, and governance of the technology, as well as frame concepts and recommend practices to establish trust in AI systems, inclusive of privacy, cybersecurity, safety, reliability, and interoperability.

We also appreciate the draft memo's recognition of the need for international coordination and cooperation. For example, the **draft memo aligns well with the OECD Principles on AI**, which ITI and its member companies support. These principles provide a constructive policy blueprint, and we encourage policymakers globally to look to them when considering how to approach AI.[2] Beyond that, the draft memo emphasizes the importance of international regulatory cooperation, calling on agencies to engage in dialogue globally to avoid fragmentation of regulatory approaches. This is a key point as countries around the world consider how to approach AI. We agree that international dialogue will spur wider dissemination of best practices, information, and guidance, increasing the likelihood that policy and regulatory approaches are interoperable.

ITI Recommendations to Refine Principles

While we generally support the comprehensive approach laid out in the draft memo, there are areas, particularly with regard to the principles themselves, that could be strengthened and be brought further in line with conversations taking place globally.

We offer the following recommendations for OMB's consideration as it seeks to refine these ten principles.

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[1] ITI Recommendations on EU's Strategy on Artificial Intelligence, available: https://www.itic.org/dotAsset/53157d6e-12cc-458d-bd97-f3d484237e14.pdf

[2] OECD Principles on Artificial Intelligence, available here: https://www.oecd.org/going-digital/ai/principles/

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A. Ensure that AI is defined appropriately

While we appreciate that OMB has attempted to scope the draft memo to focus solely on "narrow" or "weak" AI, we want to stress the importance of ensuring that AI is properly defined. AI systems are comprised of more than algorithms, and not all algorithms implicate AI; therefore, an essential factor in developing AI guidance is to properly define AI, including the component parts of AI systems beyond algorithms, as well as to define related key terms such as machine learning. Since there is no singular agreed-upon definition of AI, it will be important for agencies to provide greater definitional clarity if they plan to seek specific rules for AI functions, and ideally the U.S. will adopt a common definition of AI across the federal government, perhaps leveraging ongoing work at NIST.

B. Public trust should be a primary goal of agencies

ITI agrees that public trust is critical to unlocking the full potential of AI. Building public trust in the technology should be a primary goal of agencies as they consider how to implement the policy guidance offered in the draft memo and ITI recommends that OMB build in language that more directly addresses this.

C. Include articulation of a clear public policy need as a best practice

The third principle includes a list of best practices for agencies to look to in order to uphold scientific integrity in the regulatory process. While ITI agrees with all the best practices laid out, we recommend additionally including "articulation of a clear public policy need when proposing a regulatory approach to AI." Including this additional best practice would help avoid a situation where "regulatory solutions in search of a problem" are proposed.

D. Include further guidance on how to best assess risk

ITI supports the use of a risk-based approach to AI that accounts for the varying magnitude and nature of consequences, as well as ensuring that any regulatory approaches being considered or proposed are linked to specific public policies that are clearly in the national interest. The OMB should consider providing additional guidance on how agencies should best assess risk, including sharing best practices from across government. This will help to ensure a consistent approach to risk assessment across agencies that considers risk substitution. Such guidance could similarly provide advice on best practices in assessing benefits and making symmetrical and fair comparisons against human baseline activity.

E. Further consider liability and responsibility in the context of the draft memo

ITI supports the use of a cost-benefit analysis when agencies consider whether to regulate AI applications. As noted in the draft memo, it is key that AI systems be compared to systems currently in place when such an analysis is performed. By comparing AI applications to existing systems (and not to an unrealistic, idealized alternative), agencies can determine whether an AI system will make conditions incrementally better or worse than they are today.

Principle 5 also raises the concept of the applicability of existing law to *liability and responsibility* questions that are posed by AI. There is an active conversation taking place around the world on these important issues.

As such, ITI recommends that OMB consider addressing responsibility and liability in more detail to provide clear guidance on how agencies should think about such subjects in the context of a regulatory or non-regulatory approach to AI. In particular, OMB should note the technology-neutral nature of the existing liability framework and strong presumption against altering it except in response to significant and demonstrable shortcomings. Should a need for future action be identified in areas that involve increased risks for end-users of AI applications, it should be addressed in a sector-specific manner, with new regulation or suggested legislation filling clearly identified gaps and designed to avoid overreach. Sector-specific safe harbor frameworks or liability caps are also worth considering in domains where there is a concern that liability laws may otherwise discourage socially beneficial innovation. Updating such sector-specific regulation, rather than adopting sweeping changes to general product liability frameworks, would allow for more precise targeting of remedies for identified gaps in liability coverage.

F. Emphasize the importance of a technology-neutral, sector-by-sector approach to regulation

AI is a rapidly maturing and fast-changing field. ITI therefore strongly supports the use of flexible approaches that can adapt to rapid changes and updates to AI technologies and applications as opposed to a one-size-fits-all approach across the economy.

If agencies determine that regulation is necessary as a result of the process described in the draft memo, they should avoid regulating the technology itself. Such technology-specific regulation will likely become obsolete as the technology evolves. Instead, the government should work with industry and other AI stakeholders to focus on governance in the use of technology in order to address the issues that arise in specific uses and applications of AI in different sectors, especially when they affect human life and public safety. Focusing any regulations on specific applications of the technology, outcomes, and governance approaches, rather than on regulating the technology directly, enables flexibility.

G. Further refine a definition of bias and emphasize the need for mitigation

ITI supports the focus that the draft memo places on ensuring fairness and non-discrimination in AI applications. However, it is important to explain what is meant by "bias" and take efforts to reconcile the reality that eliminating bias entirely from all models may prove difficult. While we aspire for technology that is as objective as possible, it is ultimately influenced by the people who design that technology and the data that trains it. Principle 3 of the draft memo states that the goal should be to "mitigate" bias. ITI supports this language as "eliminating" or "removing" bias from models is not possible from a technologist's point of view. A more precise approach -- which we appreciate is laid out in Principle 7 -- is to encourage agencies to consider mitigation, if not prevention, of specific outcomes associated with bias. That said, in order to mitigate bias-driven outcomes, agencies should consider requiring appropriate safeguards and post-deployment monitoring where appropriate.

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H. Consider a more nuanced discussion around "transparency"

While we agree with Principle 8, ITI believes that the draft memo should include a more robust discussion on transparency, including providing a clear definition, especially because it is not apparent what is meant by "transparency" throughout the document. In the long-term, transparency should include two factors: understandability and interpretability.

Understandability enables a non-technical person (e.g. business executive or customer) to gain insight into how an algorithm works, and why it made a given decision. It is critical that non-technical persons understand how their data is being used and how their actions can generate new predictions. There is an important difference between merely meeting legal requirements to be transparent versus a desire to establish trust and prioritize understandability.

Interpretability allows a technical expert, such as an AI/machine learning expert, to understand why an algorithm made a given decision and helps agencies to know how their models will act in the "real world." Interpretability tends to be the focus of what organizations such as the Defense Advanced Research Projects Agency (DARPA) call "explainable AI." DARPA defines explainability as the ability of machines to: 1) explain their rationale; 2) characterize the strengths and weaknesses of their decision-making process; and 3) convey a sense of how they will operate in the future.[3]

In this vein, policymakers should avoid designing a system that creates an environment where outliers are viewed as a flaw in an overall AI system. If an outlier is indeed an outlier, then the algorithm will learn and dismiss it in later iterations so no "explanation" is necessary. As such, when and how an "explanation" may be required is highly contingent on the stage of an AI system's developmental lifecycle, the context in which a later-stage model is deployed, the purposes for which it is deployed, and numerous other factors. Any guidelines related to transparency or explainability should capture a statistically meaningful number of results to ensure uncertain results are actual concerns and not just isolated anomalies.

Research and development on interpretability remain a point of emphasis for many of ITI's members, who are working to achieve a broadly accepted technical solution.

I. Highlight the importance of internal governance models and increasing investment in security of AI systems

ITI supports OMB's position that "agencies should…encourage the consideration of safety and security issues throughout the AI design, development, deployment, and operation process."[4] The development and execution of internal governance models is a best practice when it comes to deploying a safe, secure, and fair AI system.

In addition to implementing internal governance models, organizations will need to increase investments in the security of their AI systems. The majority of organizations' current investment into security is dedicated to securing the hardware and software attack surface. Typical

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[3] Explainable AI (XAI), information here: https://www.darpa.mil/program/explainable-artificial-intelligence

[4] Draft Memo on Guidance for Regulation of Artificial Intelligence Applications, Principle 9, p. 6.

investments include patching vulnerabilities, static and dynamic analysis of production codes, and hardening operating systems. While important measures, they overlook a key point: adversarial AI targets areas of the attack surface that previously did not need to be secured: AI models themselves. Moving forward, organizations will need to include these considerations in their security budgets or risk their AI systems being exploited by attackers.

ITI supports the National Institute of Standards and Technology's efforts to establish a Taxonomy and Terminology of Adversarial Machine Learning as a baseline to inform future standards and best practices for assessing and managing the security of machine learning. OMB could consider referencing this work in footnote in a future draft of the memo.

J. Consider directly linking agency guidance in the Federal Data Strategy to the draft memo

We appreciate the importance of providing greater access to Federal Data for AI research and development. We suggest explicitly linking the guidance provided in the draft memo to agency guidance in the Federal Data Strategy and associated 2020 implementation plan, particularly Action 8, "Improve Data and Model Resources for AI Research & Development" to ensure continuity between guidance offered to federal agencies.

ITI Comments on Appendix A: Technical Guidance on Rulemaking

Regulatory Impact Analysis

The draft memo includes guidance for agencies on how to conduct cost-benefit analyses of potential regulatory approaches and states, "when quantification of a particular benefit or cost is not possible, it should be described qualitatively."[5] We believe that all cost-benefit analyses of AI applications should include consideration of *both* quantitative and qualitative metrics. Qualitative metrics provide important context and should not be used *only* when quantitative measurements are unavailable. Indeed, qualitative analysis is often needed to better understand quantitative measurements. For example, there are multiple ways to measure quantitatively the "fairness" of a particular AI application. The best way to determine which of those quantitative measurements provides the best measurement is through context and qualitative analysis. Therefore, OMB should revise its guidance to instruct agencies to consider both quantitative and qualitative factors in their regulatory impact analyses.

Assessing Risk

Given the early stages of development and implementation of AI, agencies should not assume that this technology will necessarily yield anti-competitive effects. Indeed, AI could be deployed in a manner that yields *pro*-competitive effects. By increasing efficiencies and disrupting incumbents, AI could give competitors an advantage over more well-established companies.

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[5] Draft Memo, p. 12.

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Agencies have a key role to play in helping realize the pro-competitive benefits of AI by opening up data to help drive innovation from smaller enterprises, which unlike large corporations might not have the resources to accumulate a critical mass of data. The most critical levers to help small enterprises take advantage of AI are access to data, technology, and people. The federal government can lead by example by sharing public-sector data-sets through the creation of public-data platforms that small enterprises can freely access. Additionally, government can encourage the private sector and scientific and research institutions to share data and collaborate, which can in turn help support the development of vibrant AI eco-systems.

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Once again, ITI appreciates the opportunity to provide comments on the draft memo. We believe that the United States has a tremendous opportunity to lead on both AI innovation and policy. The U.S. government should use the principles embodied in the draft memo to cement a light-touch regulatory approach to allow for continued AI innovation and growth, while also building trust in the technology. We encourage OMB to look to ITI as a willing and engaged partner as it seeks to refine its memo and help agencies define an approach to using and providing oversight over AI applications to advance their missions.

Sincerely,

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and Senior Counsel

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