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Director
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June 8, 2023

Travis Hall
National Telecommunications and Information Administration
U.S. Department of Commerce
1401 Constitution Avenue, NW
Room 4725
Washington, DC 20230

Re: Comments on "AI Accountability Policy Request for Comment" (Docket No. 230407-0093)

Dear Mr. Hall:

On behalf of the 14,000 members of the National Association of Manufacturers (NAM), the largest manufacturing association in the United States representing manufacturers in every industrial sector and in all 50 states, the NAM submits these comments in response to the National Telecommunications and Information Administration's request for comment on Artificial Intelligence system accountability measures and policies.

Background

Manufacturing employs more than 13 million men and women, contributes over $2.81 trillion to the U.S. economy annually, has the largest economic multiplier of any major sector and accounts for 55% of all private-sector research and development in the nation.[1] The NAM is the voice of the manufacturing community and the leading advocate for a policy agenda that helps manufacturers compete in the global economy and create jobs across the United States.

Manufacturers are developers and recipients of the technologies that enable AI as well as key innovators developing products and applications for AI across sectors. Manufacturers anticipate investments in AI will lead to products and processes that increase safety and improve quality of life. Manufacturers are committed to the responsible development of emerging technologies, including AI, and are committed to working with the public and private sectors to advance this goal.

AI and Manufacturing

Manufacturers utilize AI in various ways and anticipate it will impact almost every manufacturing activity by 2030, according to a recent survey by the NAM's Manufacturing Leadership Council,

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[1] https://www.nam.org/facts-about-manufacturing/

a global network of manufacturing executives in the manufacturing industry.[2] Manufacturers are committed to informing policymakers and regulators on the applications of technology across the manufacturing ecosystem and this can ensure that potential agency actions are informed by the best information possible. There are numerous uses of AI in manufacturing but four are predominant - safety, training, efficiency and product design and development.

Safety

Manufacturers use AI to protect the health and safety of employees and end-users of the final product. AI is broadly used in the factory setting to prevent injury by making tasks safer. AI is also used to prevent future injury by studying repetitive movement that could lead to torn rotator cuffs, wear on knee cartilage and other injuries caused over time.

Training

In addition to making the workplace safer for employees, AI can make learning on the job easier. AI can be used to teach workers how to assemble projects, operate equipment and complete tasks on the factory floor in a more efficient and safe way.

Efficiency

AI can be utilized to make employees and operations more efficient. AI can be used for predictive maintenance on a wide variety of manufacturing tools from fans to tires, minimizing downtime and increasing efficiency. AI is used to monitor equipment performance garnering data which can predict when maintenance will be needed. Maintenance can then be scheduled to minimize disruption and downtime as well as prevent other equipment breakdowns. An example of this is utilizing AI to monitor fan vibration to calculate when the fan will need to be replaced so maintenance can be scheduled to prevent disruption. It can also be used to monitor how workers inspect products on the factory floor and teach them more effective ways to look for quality.

Product Design and Development

Product design and development is another area where AI is used by manufacturers. AI can be used to make products safer, improve quality and improve efficiency.

Regulation (Question #7)

Manufacturers are committed to the responsible development of emerging technologies including AI. In many cases, proactive and smart federal policy may positively impact manufacturers and the United States' global competitiveness in the development and use of AI. Regulation should not restrict innovation or competitiveness, as the NAM believes the growth of AI represents an opportunity for manufacturers.

To this end, in a recent survey conducted by the MLC, 75.9% of survey respondents agreed that "manufacturers should adopt a code of ethics or conduct" for use of AI.[3] Further, in 2020 manufacturers provided comment to the Office of Management and Budget on their Guidance

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[2] https://www.manufacturingleadershipcouncil.com/manufacturing-in-2030-project/manufacturing-in-2030-survey-a-lens-on-the-future/
[3] Ibid.

for Regulation of Artificial Intelligence Application where the NAM stated manufacturers "agree with the acknowledgement in Executive Order 13859 that AI's potential applications have implications for our nation's economic leadership and national security." The comment also expressed the NAM's support for the ten "Principles for the Stewardship of AI Applications."[4]

Definition of AI and Frameworks Used (Questions #8 and 9)

NIST's definition of an AI system as "an engineered or chain-based system that can, for a given set of objectives, generate outputs such as predictions, recommendations, or decision influencing real or virtual environments" is one that manufacturers agree with and utilize.

Manufacturers also agree with and utilize NIST's AI Risk Management Framework. Manufacturers support the framework structure as a tool to regulate AI that is agile and can be adjusted to keep up with the ever-evolving technology.

Future AI Regulation

AI regulation should be indexed for the nature of the risk. A risk-based approach accounts for the diversity of current and future applications of AI. Various sectors from government to financial markets and manufacturing utilize AI and a risk-based approach that takes into account sectoral applications of the technology provides the ability to adopt practices suitable to pertinent business models. A one-size-fits-all approach to regulating AI will impede innovation, therefore agencies should include these considerations in both regulatory and non-regulatory approaches to AI. Furthermore, as an agency factors the benefits and costs related to potential action, manufacturers believe it is important for agencies to receive input that provides a clear understanding of the technology's benefits. This analysis must also account for the fact that our present understanding of risks, costs and benefits may be limited because technology lends itself to future unanticipated breakthroughs and applications. Further, any framework should be harmonized when applicable, so manufacturers do not have to navigate a complex patchwork of AI regulation.

Data Privacy (Question #25)

Data is important to the functioning of AI. Data privacy is important to manufacturers, who resoundingly support a federal data privacy standard that prevents a patchwork of state privacy laws and provides much needed legal clarity to support continued innovation and competitiveness. Manufacturers are continuously developing innovative products and transforming the manufacturing process with the latest technologies. Data continues to be a critical source and biproduct of these breakthroughs and developments as modern manufacturing evolves. Our nation's manufacturers support ongoing efforts to craft federal data privacy legislation that advances individuals' privacy while promoting U.S. innovation and industrial competitiveness. Without clarity from federal law, uncertainty will continue for our industry, causing manufacturers to sort through conflicting state privacy laws across the country. To provide greater legal clarity, federal privacy legislation should pre-empt state privacy regulations to resolve conflicting requirements in different states. A national approach to data privacy will strengthen businesses while supporting consumers.

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[4] https://documents.nam.org/IIHRP/2020.03.13%20-%20NAM%20Comments%20on%20OMB%20AI%20Guidance%20-%20Copy%20(1).pdf

Conclusion

The NAM appreciated NTIA's request for comment and welcomes the agency's attention to this important technology. We believe it will be helpful to inform future engagement with agencies on AI policy and its implications for industry. AI represents an opportunity for the U.S. to maintain its technological, economic and rules-based leadership by promoting a policy approach that supports innovation, competition and public trust. Manufacturers look forward to working with policymakers, regulators and stakeholders in the public and private sectors to advance this goal.

Comments submitted by:
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