

April 29, 2022

Dr. Laurie Locascio
Under Secretary of Commerce for Standards and Technology
Director, National Institute of Standards and Technology
100 Bureau Drive, Stop 2000
Gaithersburg, MD 20899

RE: *AI Risk Management Framework: Initial Draft*

Dear Under Secretary Locascio:

The following comments are submitted by Hitachi Group companies (Hitachi) doing business in the United States in connection with the National Institute of Standards and Technology (NIST) *AI Risk Management Framework: Initial Draft* published March 2022 and released for public comment.

Responses to NIST Draft

The 2019 NIST *U.S. Leadership In AI: A Plan for Federal Engagement in Developing Technical Standards and Related Tools* provided NIST with direction to create definitions, standards, and other guidance documents to maintain the U.S.'s leadership in the development of artificial intelligence (AI). In the various filings Hitachi has done in response to NIST draft proposals, we have appreciated the thoughtful and deliberative process NIST has taken to ensure industry input as various proposals are being considered. This collaborative work with the industry to create the foundational needs to grow AI as a technology and tool for innovation and economic prosperity are well received.

The Framework starts from the right perspective. The goals of creating a flexible, structured, measurable and voluntary framework that spans the AI lifecycle and the risks at each stage is an important recognition. As Hitachi has mentioned in other filings, different parts of the AI lifecycle presents different capabilities in assessing the model for accuracy and discriminatory elements. The Framework repeats this understanding that AI systems must be reviewed before, during, and after AI products, services and systems are developed or deployed.

Too often AI is seen through a lens of negative impacts or bias discrimination. The recognition of the Framework as creating space to respond to new risks, rather than being all inclusive of any risk, is an important feature. It also will help see where AI can bring positive impact to a company's process, workflow, or people as well as avoiding negative unintended risk. The process, always shifting through the lifecycle to measure the performance, is key to making sure small errors or deviations don't become major discriminatory issues at the end of the system's development or use.

Hitachi has also frequently cited safety as a critical element to AI systems, especially when it comes to industrial AI usage. The inclusion of a subsection on this very element is welcomed. Understanding that testing in an industrial setting may be different can help readers understand AI can be a force for good and industry is thinking through applications that need more attention or support as they are developed. AI systems become more complex as we move from machine learning into higher decision-making applications. In industrial settings, it is more important that the AI system not be used for actions it was not built to do. The complex nature of these AI systems, and the interaction that has on safety, is very important and is beyond just explainability of the system. In an industrial setting, risk assessment needs to recognize and demonstrate how it deconflicts conflicting objectives and is an area the Framework may need some more work to describe.

The functions of AI are generally correct, but it might be more beneficial to move the “Govern” section first. Governing, as noted in the Framework, touches all other functions and is cross-cutting. The section argues how important incorporating Governance of AI, from concept to disposal, to discussions on if an AI system should even be used. Putting it first can help companies remember to start with the vision of what AI is going to solve or enhance, then move into the other core functions to develop, deploy, and dispose of the system. In fact, a larger emphasis here could be the ethical decision to not use an AI system in a particular setting. The company’s risk assessment may determine the outcomes of an AI system are not beneficial enough or could turn out to be more adverse. The Framework can help reinforce the self-regulatory nature a company can incorporate into this ethical and business decision.

Inclusion of a practical guide is very welcomed. It can give users a better understanding of how the Framework can be used. To make it the most effective, NIST would be wise to not just walk through implementation of the Framework, but in fact find specific models of governance, using plain English to explain how a company used its operational process to assess a system, why this example meets what NIST is aiming for, how the model identified problems in the AI system, at what point, and how the model was corrected to address the risk. Companies need to see what to do when something goes wrong, not just generic examples, and it is even better to show why NIST thinks a specific process is superior and created in a way to maximize positive outcomes of an AI system risk management assessment.

This is a living document, as NIST notes, and this recognition is critical to its success. As in an AI system, the more tools are evaluated, tested, used and updated, the better the systems get and the better we get at identifying where the touchpoints for correction lie. Evolutionary models benefit from evolutionary governance.

Conclusion

Hitachi appreciates NIST’s vigorous effort to implement the February 11, 2019 Executive Order (EO 13859) on securing the country’s leadership in AI. This Framework Draft is a helpful step in that implementation, furthering the U.S. advancement in AI and working with industry to set standards for future innovation in this area. We look forward to our continued collaboration to assist the federal government as it works to develop internationally agreed-upon, consensus-based standards that promote trustworthiness and widespread AI adoption.

Sincerely,



Hicham Abdessamad
Chairman & CEO
Hitachi America, Ltd

Background

Founded in 1910 and headquartered in Tokyo, Japan, Hitachi, Ltd. is a global technology corporation answering society’s most pressing challenges through cutting-edge operational technology (OT), information technology (IT), and products/systems. A Social Innovation leader, Hitachi delivers advanced technology solutions in the mobility, human life, industry,

energy, and IT sectors. The company's consolidated revenues for FY2021 (ended March 31, 2022) totaled \$84.13 billion and 853 companies employ over 368,000 employees worldwide.

Since establishing a regional subsidiary in the United States in 1959, Hitachi has been a committed American partner. For over thirty years, it has invested heavily in research and development (R&D) in the U.S., and this continued reinvestment has resulted in 19 major R&D centers that support high-skilled jobs in manufacturing and technology. Dedicated to delivering the technologies of tomorrow, Hitachi opened a Center for Innovation in Santa Clara, California to explore applications in machine learning, artificial intelligence, Internet of Things (IoT) devices, data analytics, and autonomous vehicles among other advanced technologies. Hitachi is also proud of its human capital investment with more than 25,000 employees across 81 companies in the U.S. At 15% of total revenue, North America is Hitachi, Ltd.'s second largest market, following only the Japanese market, with \$12.7 billion in revenue in FY2021.