NIST AI Project

The National Information Standards Organization (NISO) would like to extend our resources, network, and expertise to the Federal Engagement in Artificial Intelligence Standards project at NIST. NISO is an ANSI-accredited standards development organization where content publishers, libraries, and software developers turn for information industry standards that allow them to work together more efficiently. Members of our community bring a wealth of expertise in data standards, identifiers, metadata, archival standards, and information management standards, as well as a network of practitioners in information management, access, and delivery.

Since its foundation in 1939, NISO has been a leader in the development of community-developed information standards. Consistent with the United States Standards Strategy, NISO works with more than 250 government agencies, private companies, academic institutions, and the user community to produce nationally and internationally recognized and adopted standards at all levels of the information industry. We have the ability to connect cutting-edge developers, policy makers, and end users in order to produce standards for data, data analysis, information exchange, and metadata across all disciplines.

In the initial NIST AI model, NISO's involvement would stretch across many levels of the AI usage cycle. Taking the model as presented at the NIST Federal Engagement in AI Standards Workshop from May 2019 these areas include:

- Data collection and processing
- Model development
- Verification and Validation
- Deployment
- Operation and Monitoring
- Decision or Prediction

NISO's core competencies focus on the development of standards related to the creation of content that could be used in the training of or consumption by artificial-intelligence-based systems. Structured content is also critical in the area of data collection and processing if these systems are to function efficiently around which NISO has developed a variety of standards, such as standardized text publishing XML standards. The assignment of identifiers and

metadata are critical to understanding and reusing a data set and are core components of the verification and validation process. For example, the DOI standard, which is widely used in data sharing and linking, was developed and standardized by NISO and then moved onto ISO under NISO's leadership. Related to data and deployment, NISO has been involved in several reuse projects, such as data publishing, data metrics and assessment, and policy development at the intersection of data use and privacy protections. Preservation and interoperability are other elements of the deployment, operation and monitoring processes that NISO has experience engaging the community on.
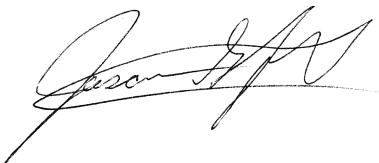
Obviously, NIST and NISO agree that standards will play a vital role in the development and deployment of AI systems. We would be interested in partnering with NIST, other federal agencies, technology companies, and any other organization seeking assistance producing comprehensive, collaborative, maintainable data standards for the description, transmission, analysis, and archiving of data used in artificial intelligence computing. Please continue to involve NISO and our community in these developing conversations. Those interested in discussing the role of information standards in AI can please contact the NISO Executive Director or the Director of Strategic Initiatives, via email at nisohq@niso.org.

We look forward to continuing these conversations.

Sincerely,

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