



Next-Gen AI for Proliferation Detection: *Accelerating the Development and Use of Explainability Methods to Design AI Systems Suitable for Nonproliferation Mission Applications*

September 15 and 16, 2020
12:00 – 3:30 p.m. EST

Sponsored by
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the **National Nuclear Security Administration's**
Office of Defense Nuclear Nonproliferation
Research & Development

Abstract

AI, including machine learning and deep learning, holds great promise to produce next-level capabilities across a wide range of fields. However, the current state of AI must dramatically improve in certain areas to become more widely applicable and effective. One such key area is *explainability*. Explainability is critical to high-consequence, low-likelihood events prior to wider adoption and confidence by stakeholders. This is especially true with nonproliferation and proliferation detection, where AI can be a transformative tool. Excluding explainability severely limits achieving an AI system's potential predictive power and ability to find wide-spread acceptance.

This meeting seeks to accelerate the development and use of explainability methods in AI systems for nonproliferation applications, particularly focusing on explainability in model selection and explainability-by-design. A series of talks and panels from leading AI researchers will demonstrate the current state-of-the-art in research and discuss potential paths forward for explainability. Advancing explainability and truly enabling (explainable) AI to take hold in nonproliferation requires an adjustment in perceived AI requirements and awareness of both the necessity and benefits of explainability. Participation in this meeting will enable participants to be a part of this, provide new learning opportunities, facilitate new collaborations, and identify outstanding challenges that will guide future funding calls in this rapidly expanding area.

[Link to Meeting Presentations](#)

For more information, please contact:

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Diversity & Inclusion Statement

The Next-Gen AI for Proliferation Detection Meeting is committed to driving inclusive diversity and representation across our field. To foster an organizational culture that welcomes all perspectives, meeting organizers will deliberately consider the role of inclusive diversity throughout the planning process and in the recruitment of diverse subject matter experts participating in our event(s). Our goals include improving gender equity and representation, highlighting the work of women and minorities in STEM, and contributing to the Department of Energy's larger initiative to recruit a talented and diverse workforce.