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Intelligence (AI) to Transform Nuclear Explosion Monitoring and Verification: Thoughts on Opportunities and What It Might Take to Get There.

Monday 28 June 2021 14:00 (45 minutes)

Artificial Intelligence (AI) has the potential to revolutionize the very ways we live our lives and make our world more sustainable and equitable. Today's AI based methods, which are still nascent and narrowly applied, are already providing means to innovate and impact everything including science, environment, energy, health, and climate. AI impacts the U.S. Department of Energy (DOE) across all missions, businesses, and operations, and has become central to accelerating scientific discovery and the development of transformational new technologies. The DOE, like the CTBTO PrepCom, needs trustworthy AI systems that are accurate with high confidence and proven to be unbiased and reliable. Working in collaboration with global partners, DOE – the largest sponsor of physical sciences in the United States and largest generator of Nobel-prize winning scientists in the world – is driving high-risk research and development to advance the science of AI to create AI-enabled technologies that fulfill these requirements. This presentation will highlight a number of examples of AI in practice at DOE today, emerging areas of interest, and insights on opportunities presented by AI for the CTBTO PrepCom, drawing on decades of experience developing cutting-edge science and technology capabilities to deter and detect nuclear explosive tests.

Promotional text

Primary author: Mr KUSNEZOV, Dimitri (Deputy Under Secretary for AI and Technology at the US Department of Energy)

Presenter: Mr KUSNEZOV, Dimitri (Deputy Under Secretary for AI and Technology at the US Department of Energy)

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