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The relationship between space law and cyberlaw, and other recent developments in space law (5)

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ARTIFICIAL INTELLIGENCE AND STATE RESPONSIBILITY FOR SPACE ACTIVITY

Abstract

Artificial intelligence is an emerging technology which is anticipated to revolutionize society and industry. Artificial intelligence also presents a potential technological component to ensure the cyber and physical security of space assets. However, the use of artificial intelligence in space assets may conflict with certain legal obligations or duties imposed by the space law treaty regime.

Outer Space Treaty Article VIII obligates a State to retain control over a space object it launches. Using artificial intelligence in space assets presents the question of whether such reliance abdicates a State's obligation to retain control over a space object it launched or which is registered to it. If so, then issues will exist regarding how a State may balance the use of artificial intelligence in space assets with its obligations under the Outer Space Treaty. For instance, in the emerging autonomous or driverless motor vehicle technology, some jurisdictions in the United States are contemplating laws which mandate human ability to override or otherwise intervene in decision making by artificial intelligence in certain circumstances.

Similarly, Article III of the Liability Convention imposes liability based on a State's fault or fault of persons for whom the State is responsible. The use of artificial intelligence in space assets presents the possibility of negating Article III's fault-based concept. The unsettled liability issues associated with autonomous motor vehicles may very well foreshadow liability and fault allocation issues arising from the use of artificial intelligence in space assets.

This paper will examine whether the use of artificial intelligence in space assets conforms with a State's obligation under Outer Space Treaty Article VIII and Liability Convention Article III and analyze what measures, if any, may be necessary to ensure that the provisions are not undermined by the use of artificial intelligence in space assets.