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IISL COLLOQUIUM ON THE LAW OF OUTER SPACE (E7)
Balancing Needs: Protection of Space Science (3)

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OPEN SCIENCE AND COMMERCIAL SECRETS

Abstract

The potential commercial context of future space exploration, in particular commercial exploitation of resources on celestial bodies, has the distinct possibility of putting scientific discoveries about space into private hands. What if, as an example, a space mining company found a dinosaur bone on the Lunar surface? Such a discovery would fundamentally change our understanding of natural history, but would also be of great monetary value to the company, leading to questions of which interest, science or profit, should prevail.

The fact that profit is a driver of scientific exploration is not new, and is easily illustrated by terrestrial instances such as pharmaceutical companies being active in research in areas of biodiversity. The ensuing issues raised in such cases have played out in courts in disputes around patents and trade secrets. Discoveries in space, though, occur within a distinct legal framework that embraces a heightened concern with information sharing among states and operators alike. This paper will discuss this framework in both legal and ethical terms and evaluate its ability to mediate between science and commerce. Specifically, this paper will suggest that though there are strong ethical justifications for balancing these interests, at the moment there is a legal imbalance that disfavors the sharing of information that has both scientific and commercial value.

This paper will proceed by first discussing the role of information sharing in the space law regime and give examples of open science initiatives from civil space actors to support this regime. It will then turn to a more general discussion of the nature of scientific data when discovered or held in the commercial context. Finally, it will discuss the extent to which the legal framework for space balances these competing interests, and whether it is possible to have robust commercial space exploration coupled with open science.