17th IAA SYMPOSIUM ON VISIONS AND STRATEGIES FOR THE FUTURE (D4)
Interactive Presentations - 17th IAA SYMPOSIUM ON VISIONS AND STRATEGIES FOR THE FUTURE (IP)

Author: Dr. Tony Milligan
King's College London, United Kingdom

Dr. Alanna Krolikowski
United States
Dr. Martin Elvis
Harvard-Smithsonian Center for Astrophysics (CfA), United States

CONTRASTING THE HUMAN VALUE OF LUNAR SCIENCE VERSUS LUNAR COMMERCE

Abstract

In the moderately near-term it is likely that science and commerce will vie for the use of small areas of the Moon of particular interest to both. We draw upon both ethics and questions of policy formation in order to clarify the contrast between the human value of lunar science versus that of lunar commerce. We find that the apparently altruistic approach of assigning an intrinsic value to lunar science (i.e. intrinsic value) does not resolve all ethical and policy dilemmas in cases of conflict. We keep ethical considerations closely tied to policy, such that all ethical claims must be 'policy-apt', i.e. able to shape policy formation within liberal democracies and in agreements to which they might be party. We first note that we value scientific knowledge for its own sake. E.g. scientific knowledge generated by astronomy. By contrast, space commerce is often, and sometimes exclusively, valued as a way of generating private profits. In the language of ethics, there is a stronger case for regarding science as an 'intrinsic good' as well as instrumentally useful. Lunar science would then seem to automatically trump lunar commerce. However, at least some forms of lunar commerce may qualify as a social good, legitimately promoted by social policy and even entitled to subsidy. Such commercial activity is not only a matter of private interest set against our wider human interest. It may, instead, be valuable to a significant portion of humanity. In such cases, trade-offs and choices between the human value of lunar science and lunar commerce may involve genuine dilemmas, even if we continue to see science as ultimately more important. An obvious example would be where lunar commercial activity forecloses a pathway to future scientific enquiry, but simultaneously opens other paths of enquiry. A specific hard case is in-situ lunar fuel production that would disrupt pristine regolith (with a consequent loss of important information), but that could also enable otherwise impractical science, including extensive lunar exploration, or the placement of large telescopic arrays on the lunar far-side. We will present a table detailing key ways of distinguishing between the kinds of lunar commerce which would automatically be outweighed by science, and the kinds of commerce which could pose dilemmas similar to those in the hard case.