

Intellectual Property Rights Protection for Data Received from Outer Space

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Abstract

This paper seeks to discuss the international framework established for protection of satellite data while emphasizing on the legal uncertainty prevailing in applying national IPR regime to Outer space as the existing international space law formulated at the beginning of space era focused only on Nation's involvement for exploring space with the sense of responsibility for using space in benefit of all mankind; consequently there exists a legal lacuna in addressing individual's interest and protecting one's innovation were not a prior concern within the text of International space law. The need for refining the international space law has taken the center stage of debate among the space experts is with the view that, in recent years the nature of space exploration has been transformed from state owned activities to private sector involvement. Aspects of commercializing space have indicated the need for legal reformation in applying IPR to data acquired through satellite and to bring about a confined international data policies as IPR protection should not reduce the availability of data for the developing countries. Finally, the paper seeks to analyze the legal perspectives of space faring nations in implementation of IPR protection and data distribution policy at International and National forums.

I. Introduction

Space age is considered as the biggest leap in history of Mankind, where human fantasy to reach out to a region beyond the Earth took its shape into reality. Since then, Space endeavors have taken the center stage for economic and societal development of every individual and Nation's as whole. Today one of the major concerns observed in every industry is how and up to what extent protection should be provided in regards to any invention or idea that has commercial value, so thus in space industry as space technology been highly sophisticated requires unique inventiveness and large intensives to carry out space exploration in an environment that poses drastic challenges. It requires

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new techniques and knowledge when attempting to work in such environment where there are no firm boundaries and limits. In pursuit to encounter intellectual growth in space exploration, it is of greater importance to provide economic and ethical guarantees for one's innovation and inventiveness. In accordance to provide such guarantees, Intellectual Property Rights regime has to be adopted to protect the intellect creation resulting from the space investigation. In advent to the fact that major source of revenue in space industry is incurred through commercialization of data acquired through satellites. It is one such technological boom that articulated to use space as a tool for monitoring and maintaining the Earth.

II. IP Recognition for Space Technological Assets

Emphasizing on the fact that IP laws are one such regulatory framework that not only protects one's intellectual creation but also facilitates the grant of intensive for further development. The shifting nature of industrial development has urged the need for adopting IP to every sector that guarantees sustainable intellectual gain. Despite of the fact that space technology is been one of the most advanced technical area that has tremendous global impact in diversified fields for social, economic and scientific development, it is only in recent years that intellectual property protection in concerns with outer space activities has raised wider attention. Whereas it cannot be debated that there are no laws relating for IP protection in outer space, placing our interest on the major international intellectual property rights protection regimes that is PARIS convention which provides provision in concerns with protection of invention related to outer space by granting patent rights, BERNE regime that provides copyrights protection for computerized data obtained through satellites, TRIPS agreement providing provisions for acquiring patentability of invention related to outer space and Inter-Governmental Agreement (IGA) providing protection of rights in International Space Station (ISS). These international IPR regimes have provided certain converging and diverging nature of applying IPR to outer space.

III. IP Laws and Outer Space Treaty

III.1. Common Principles with Contradicting Application

Evidently, focusing on the legal parameters based on which Intellectual Property rights regime as well as laws relating to outer space explorations were drafted it is of great interest to note both these legal frameworks sustain common principles though their applications differ widely. For instance, IP laws adopt (1) National Treatment & MFN Principle for granting intellectual rights without any discrimination for national and foreign applicants; (2) Exhaustion of rights with territory; (3) Independence of use of rights granted; (4) Rights are territorial; and (5) granting rights in persistent to human rights

and sustainable development of economic. Whereas, Outer space regime adopts similar principles which states non-discrimination to all for using outer space only for peaceful purposes; no appropriation for use of space as outer space is considered as extra-territorial in nature; States using the space shall focus on scientific development rather than individual or national development.

IV. National IP Laws to Data Received from Outer Space

Remote sensing technology is considered as greatest inventive step forward that influenced the scientific and commercial growth to a vast extent in the space industry. The sensing technique has provided a unique advantage of providing space based services to non-space faring nations. Thereby, the signals are sent to the satellite from one specific country but they can be received in two or more countries. During such international transmission few consensuses seems to be emerging, first of all it is greater interest to determining the fact which IP law or laws would apply; is it the law of the country from which the transmission originates, or is it the law of the countries in which it can be received. This question is of particular interest in those cases where, under Article 11bis(2) of the Berne Convention, that proposes non-voluntary licenses for defining the applicable IP laws for an international transmission. Another question of concerns is the identification of the relevant right-owners in those cases where the rights have been granted on a territorial basis, and where there are different owners of the rights in the country where the transmission originates and in the country or countries where it can be received. Finally, focusing at the technological outset it is evident that the signals or data received through satellite are in form of raw data which has no value of human intellect to it, IP value is added to only to encrypted data. In few cases, this encryption technology is provided from a country which has no rights of transmission or reception: but indeed has IP rights.¹

V. Legal Certainties in Outer Space Treaty in Defining IPR

The existing space law which was formulated in the beginning of space era focused only on Nation's involvement in conducting outer space exploration along with the obligations to drive benefits from outer space with the sense of international responsibility and in accordance to international law. Consequently there exists a legal launce in addressing individual's interest and protecting one's innovation were not a prior concern within the text of International space law. Within the context of International space law, the outer space treaty deals with the legal status of space activities. The norms in outer space treaty has no replication

¹ www.wipo.int/export/sites/www/about-ip/en/iprm/pdf/ch7.pdf.

in stating IP rights for space affairs, since nation's have the obligation to conduct space exploration activities in concern to international law which has drawn an indirect relation in stating IP rights as stated in few articles within the outer space treaty.

V.1. Article VI: Obligation of Responsibility and Supervision – National Security Issue

Outer space treaty reflects legal norms with conformity for recognition of common interest of mankind in the exploration and use of outer space including the Moon and other celestial bodies, with certain obligations on the states to maintain peace, security and to promote international co-operation. In connection with the fundamental principles of the Outer Space Treaty, its article VI has a vital role in defining the responsibility on States party for all activities whether such activities are carried by governmental or non-governmental entities and for assuring that such activities are carried out in conformity with the provisions provided in the treaty. This article paved the way for the private sector to conduct space activities but obligating the State party to authorize and continuous supervise for all such activities of the private legal persons of their nationality. A legal launce exists in this article while addressing the IP rights that rise form such private participation thus failing to provide any provisions that defines ownership rights within the treaty.² Indeed, this article stipulates only to the responsibility that the State party shall execute as National security issue is the major concern during the transmission or reception of satellite data.

V.2. Article VIII: Jurisdiction and Control-Exercise of Moral Rights “Fitness of Purpose”

The most prominent issue in concern to satellite data while conducting the activities of transmission or reception is in determining its actual intended usage. In accordance to the provisions under OST, State party shall execute jurisdiction and control for all space activities or space objects being used to carry out such activities.³ This relation has be drawn for data received through satellites as State shall exercise the principle of moral rights as such provide within the provisions of TRIPS agreement or any such IP related legal frameworks. Further, State party providing the satellite service shall be obligated to assure ‘*fitness of purpose*’ for the data been provided on basis on mutual agreements and shall be considered liable for any such negligence.

2 Art. VI of OST, deals with international responsibility, stating that “the activities of non-governmental entities in outer space, including the Moon and other celestial bodies, shall require authorization and continuing supervision by the appropriate State Party to the Treaty”.

3 Art.VIII of OST, states “A State Party to the Treaty on whose registry an object launched into outer space is carried shall retain jurisdiction and control over such object, and over any personnel thereof, while in outer space or on a celestial body”.

V.3. Article X & XI: Obligation to Transparency with Exclusive Rights

Outer Space Treaty was drafted for recognizing the common interest of mankind in the exploration and use of outer space for peaceful purposes. The provisions provided in OST has stipulated the fact that the States Parties to the Treaty shall consider all space activities on a basis of equality, which emphasizes to provide the satellite data as afforded by developing or any non-space faring nations. The state party is obliged to provide opportunity for other state parties to the treaty to observe the flight of space objects launched by those states.⁴ Further, OST treaty states that space faring nations shall agree to inform the Secretary-General of the United Nations as well as the public and the international scientific community, to the greatest extent feasible and practicable, of the nature, conduct, locations and results of such activities.⁵

VI. International and National Data Policy

Remote Sensing data has a major role in space commerce. Remote sensing of the Earth from Outer Space not only involves simply the collection of information from a distance about an object or an area without being in physical contact with it, the principles relating to remote sensing identify various stages from primary data collection, activities is processing, intercepting and disseminating the processed data. A great deal of creativity is involved for manipulation of raw data into useful information; hence IPR protection for data received from satellite has become a subject of international context.

The Berne Convention negotiated in 1886 is the international agreement relating to literary and artistic works. According to this convention, copyright will not be granted to idea but rather to the creation of it. With remote sensing, unenhanced data is the raw material to which an interpreter applies an idea and enhances it to for useful information. Unenhanced data in either digital or photographic form is a mere representation of the Earth as it exists and has no protection granted under Berne Convention. Another way in which Berne Protection extends to remote sensing data is through the data's relation to software used for formulating the enhanced data.⁶

4 Art X & XI of OST, states "the States Parties to the Treaty shall consider on a basis of equality any requests by other States Parties to the Treaty to be afforded an opportunity to observe the flight of space objects launched by those States."

5 And states shall "agree to inform the Secretary-General of the United Nations as well as the public and the international scientific community, to the greatest extent feasible and practicable, of the nature, conduct, locations and results of such activities."

6 J. Richard West, "Copyright Protection for Data Obtained by Remote Sensing: How the Data Enhancement Industry Will Ensure Access for Developing Countries" Fall 1990, <http://scholarlycommons.law.northwestern.edu/cgi/viewcontent.cgi?article=1320&context=njllb>.

European Union has adopted a directive to acknowledge copyrights to the databases and also created a sui generis database right for the protection of databases and its content. The European Union Database Directive was formulated in 1996, to establish copyrights protection for members of European Union, by granting database right to all databases representing a collection of data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means. Under the database directive, extracting data is the permanent or temporary transfer of all or a substantial part of the contents of a database to another medium by any means or in any form and may be measured quantitatively or qualitatively.⁷

Indian space research programme is majorly focused on development of remote sensing technology and it has one of the largest fleets of Earth observation or remote sensing satellites for civilian uses. Space commerce in Indian space program relies on satellite data dissemination; thereby India has adopted Remote Sensing Data Policy (RSDP2001) and Remote Sensing Data Policy, (RSDP2011). Remote sensing policy provides provisions in relation to licensing rights for up-linking rights, license for direct broadcasting services and strict liability by providing rights on content regulation.

VII. Conclusion

Today one of the contemporary issues addressed by world community is to apply Intellectual Property Rights regime to Outer Space regime. The basic principles of providing ownership rights established under these two regimes have become a controversial reason to narrow down the legal perspectives between them. The need for sensed data has increased dramatically due to the large number applications which can be exploited from the sensed data. It is useful in metrology, agriculture, forestry, analyzing environmental changes, disaster management, intelligence and warfare. This makes the protection imperative. One of the major controversial issues in concern to the global commons while providing IP protection might reduce the availabilities of data to the developing Countries or will these exclusive rights overlap with the provisions of International Space Law for providing assistance to developing nations. Consequently, the shifting nature of outer space activities from state owned to private sector involvement has raised the need to bring about well-defined IPR regime to outer space that would provide guarantees to private entities for their investment on the invention and innovation. In this concern, major space faring nations like United States, European Member states and few others have formulated national Intellectual Property Rights laws in rela-

7 Dr. Rahul Jairam Nikam, "Space Activities and IPR Protection, need for a new legal regime", pp. 301.

tion to outer space so as to facilitate their private industry to carry out space exploration with a long term guarantee.

References

- Christol, Carl Q, Remote sensing and international space law 16J, SpaceL.21(1988). http://www.spacelaw.olemiss.edu/jsl/back_issues.html.
- Digitalcommons at University of Nebraska-Lincoln, "Protecting Intellectual Property in Space", <http://digitalcommons.unl.edu/spacelawdoc>.
- Fundamentals of remote sensing. [www.nrcan.gc.ca/sites/www.nrcan.gc.ca/ \[...\]/pdf/](http://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/.../pdf/).
- Jakku R, "Regulation of space activity in India". www.cissm.umd.edu/papers/files/jakku.pdf.
- Jakku, R, International Law Governing the Acquisition and Dissemination of Satellite Imagery, 29 J Space L, 65 (2003). http://www.spacelaw.olemiss.edu/jsl/back_issues.html.
- Mukund Rao, V Jayaraman, S Kalyanraman, George Joseph, RR Navalgund and K Kasturiranga, Strategising for the Future Indian EO programme. Paper presented at International Astronautical Federation Congress of 2002. IAF-01-B.2.03 OCTOBER 2, 2001.
- Principles relating to remote sensing of earth from outer space. www.oosa.unvienna.org/pdf/gares/ARES_41_65E.pdf.
- Satellite Remote sensing from outer space. [www.geo.mtu.edu/rs4hazards/ksdurst/website/ \[...\]/Remotesensing.pdf](http://www.geo.mtu.edu/rs4hazards/ksdurst/website/[...]/Remotesensing.pdf).
- Stowe, Ronald F, The Development of International Law Relating to Remote Sensing of the Earth from Outer space, 5 J. Space L. 101 (1977). http://www.spacelaw.olemiss.edu/jsl/back_issues.html.

