

Analysis of Space Law, Satellite Constellation-Based Internet with Reference to Legal Positivism

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Abstract: Satellite-based internet constellations, and cybersecurity. Given the advancements in satellite technology and digital communications, which provide both opportunities and challenges. The international law that governs activities in space is known as "space law," and it is dynamic and ever-evolving. The primary concerns of space law have historically been the regulation of space-based weaponry, the cleanup of orbital debris, the launch protocols for satellites and spectrum bands for everyone. Legal positivism theory which can be justified here as according to John Austin, "the existence of the law is one thing its merit or demerit is another. Whether it be or be not is one enquiry; whether it be or be not conformable to an assumed standard, is another enquiry."

Keywords: Satellite, internet, cybersecurity, Legal positivism

I. Introduction

Examining the topic "Critical Analysis of Space Law, Satellite Constellation-Based Internet, And Its Effect on Cybersecurity" in detail requires examining the numerous dimensions of this convergence and weighing the potential benefits, drawbacks, and repercussions. By delving into these parts, we may get valuable insight into the evolving subject of space law, internet access via satellite constellations, and cyber threat defence [1]. The research aims to provide recommendations and policy insights to guide policymakers, industry stakeholders, and the international community through the complex confluence of various fields.

Herbert Hart, a legal philosopher agrees with Austin. He explained that Austin did not actually say that the norms of moral law and the precepts of the natural law did not have any influence in the promulgation of rules and regulations. In addition to this, he also said that Austin did not imply that positive law is non-moral. Austin defined law by saying that it is the "command of the sovereign". He expounds on this further by identifying the elements of the definition and distinguishing law from other concepts that are similar: "Commands" involve an expressed wish that something be done, and "an evil" to be imposed if that wish is not complied with.[2]. Here Space Law which is governed by UNO and its space law department which takes care of issues related to space objects, establishes protocols, and govern to give justice to all entitled UNO members as an apex body with the help of international space treaties signed by all members. These are the commands of the sovereign international body which has its agreed law in place as international space law and those are binding on all members.

II. Historical Evolution of Space Law

The historical evolution of space law is a fascinating journey that has evolved in response to the expansion of human activities in outer space. Before the Space Age, during the early 20th century, there was a noticeable absence of a legal framework governing space activities. This legal vacuum had significant implications for the emerging field of space exploration [3].

At that time, human activities in space were largely confined to theoretical discussions, science fiction, and imaginative visions of the future. The concept of space exploration was novel and belonged to the realm of the unknown and the futuristic. As a result, there was no established body of law that could regulate and govern these activities.

The absence of a legal framework created a legal vacuum in outer space. This vacuum had profound implications and potential challenges for a variety of critical issues. These challenges included:

Ownership of Celestial Bodies: Without established regulations, questions about the ownership of celestial bodies such as the Moon or other planets remained unresolved. Nations and private entities were left without clear guidelines on how to claim or use these celestial resources.

Liability for Space Debris: With no legal framework in place, issues related to liability for space debris were largely unaddressed. As satellites and other space objects were launched into orbit, there was no clear international consensus on who would be responsible for accidents or collisions in space.

Use of Outer Space for Peaceful Purposes: The absence of legal regulations made it unclear how outer space should be used, particularly regarding the peaceful use of space. The potential for military activities in space was a concern, and without established laws, disputes and conflicts could have arisen. The pre-Space Age era was characterized by a lack of legal regulations to govern human activities in outer space. This legal vacuum created uncertainty and posed significant potential challenges,

including issues related to celestial body ownership, liability for space debris, and the peaceful use of outer space. The subsequent emergence of space law, marked by key milestones and international agreements, sought to address these challenges and provide a legal framework for the exploration and use of outer space.

Internet for All: Internet should be available for all countries without bias, secure and having accountability.

III. Introduction to Legal Positivism:

Bentham and Austin, law is a phenomenon of societies with a sovereign: a determinate person or group who have supreme and absolute de facto power—they are obeyed by all or most others but do not themselves similarly obey anyone else. The laws in that society are a subset of the sovereign’s commands: general orders that apply to classes of actions and people and that are backed up by threat of force or “sanction”. This imperatival theory is positivist, for it identifies the existence of law with patterns of command and obedience that can be ascertained without considering whether the sovereign has a moral right to rule or whether their commands are meritorious. [4]

IV. General Overviews of Legal positivism:

The two most important statements of positivism in the 20th century are Hart 1997 (originally published 1961) and Kelsen 1970 (first published in 1934). Hart was influenced by earlier British positivists like Austin and Bentham, as well as the later Wittgenstein, but his has proven to be the most influential text on positivism in the English-speaking world. Hart argues that every legal system is a union of obligation-imposing (“primary”) rules and power-conferring (“secondary”) social rules; in the latter case, a sufficient number of officials of the system accept those rules as guides to their conduct and standards of evaluation of the conduct of other legal participants. The most fundamental secondary rule of the system is what Hart calls a “rule of recognition,” which specifies the ultimate criteria of legal validity (e.g., “what Parliament enacts is law”). Hart’s discussion served as the focal point of nearly all discussions of legal positivism since its publication in 1961. The second edition (Hart 1997) includes a posthumously published postscript in which Hart addresses primarily the criticisms of Ronald Dworkin, a response which has itself spawned a considerable literature. Kelsen’s theory is also one of the great positivist theories of the 20th century and is inspired more by certain themes in European (and particularly Neo-Kantian) philosophy. Kelsen’s texts have been less influential in the Anglophone world and received much less scholarly attention, due no doubt to his difficult and sometimes obscure prose. Green 2003 gives a thorough and up-to-date overview of the various competing positivist theories and contains a short but reliable bibliography for further reading. Leiter 2003 and Shapiro 2007 give useful summaries of the dialectic between positivists and their critics over the past three decades. Gardner 2001 takes a different tack by illuminating the nature of positivism by distinguishing it from other views which are often mistakenly identified as central to positivism. [5]

V. Correlation between Legal positivism and Space Law:

H.L.A. Hart’s list of meanings of legal positivism (which cumulatively count as features of positivism): (1) law as human commands; (2) absence of any necessary connection between law and morals; (3) the study of law as meaning, as distinct from sociology, history and evaluation; (4) the contention that a legal system is a closed system, sufficient in itself to justify legal decisions; (5) non-cognitivism in ethics (Hart 1958).

legal positivism has been conceived as: (1) a neutral, scientific approach to law; (2) a set of theories depicting the law as the product of the modern state, claiming that the law is a set of positive rules of human origin, and ultimately amounting to a set of statutes, collected in legal systems or orders; (3) an ideology of law that gives a value to positive law as such, implying that it should always be obeyed. [6]

The treaty is the foundation of international space law for signatory nations (108 in 2019). The treaty presents principles for space exploration and operation:

- 1) Space activities are for the benefit of all nations, and any country is free to explore orbit and beyond.
- 2) There is no claim for sovereignty in space; no nation can “own” space, the Moon or any other body.
- 3) Weapons of mass destruction are forbidden in orbit and beyond, and the Moon, the planets, and other celestial bodies can only be used for peaceful purposes.
- 4) Any astronaut from any nation is an “envoy of mankind,” and signatory states must provide all possible help to astronauts when needed, including emergency landing in a foreign country or at sea.
- 5) Signatory states are each responsible for their space activities, including private commercial endeavours, and must provide authorization and continuing supervision.
- 6) Nations are responsible for damage caused by their space objects and must avoid contaminating space and celestial bodies.
- 7) Signatories take full liability for any damage caused by their space objects and agree to standard procedures for adjudicating damage claims.

- 8) Expanding a space object register, the Convention empowers the UN Secretary-General to maintain a register of all space objects.[7]

VI. Conclusion

Space law is based upon a series of international treaties, agreements, and UN resolutions governing the use and exploration of outer space. The treaties work to prevent the militarization of space; prohibit claims of sovereignty over celestial objects, and outline the liabilities of space-faring entities for damages to the surface of the Earth as well as to other objects in outer space. Another international treaty obligates space farers to provide assistance to astronauts who are in distress, and to register with the U.N. objects launched into outer space. A frequent theme underlying most of the treaties is the concept of space as Province of All Mankind. Certain aspects of these agreements mirror similar concepts from maritime law and treaties.

Although not free from shortcomings, the Legal Positivist School is regarded as the most influential school of thought in jurisprudence. Judges have based their decisions on this school of thought across various countries, including India. Indian Judges have been greatly influenced by the thinking of legal positivists and have applied their jurisprudence while giving landmark judgements such as **A.K. Gopalan v. State of Madras** to name one of them.

The basic idea behind legal positivists was that they considered law as it is and not what it ought to be. They separated moral principles from legal principles. They were of the view that law is the will of the superior which is backed by sanction

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